

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 074-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

1. AGENCY USE ONLY (Leave blank)			2. REPORT DATE 5 June 1964		3. REPORT TYPE AND DATES COVERED Master's Thesis August 1963 - June 1964		
4. TITLE AND SUBTITLE THE COLLECTION AND PROCESSING OF COMBAT INTELLIGENCE AS PERFORMED BY THE U.S. ARMY DURING OPERATIONS IN NORTHERN EUROPE			5. FUNDING NUMBERS				
6. AUTHOR(S) Schopper, Jared B., Major, Infantry							
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College 1 Reynolds Ave. Fort Leavenworth, KS 66027			8. PERFORMING ORGANIZATION REPORT NUMBER				
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSORING / MONITORING AGENCY REPORT NUMBER				
11. SUPPLEMENTARY NOTES							
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.					12b. DISTRIBUTION CODE A		
13. ABSTRACT (Maximum 200 Words) This paper presents an analysis of the functions of collection and processing information into combat intelligence as performed by the U.S. Army in northern Europe during World War II, from January 1944 to May 1945. Emphasis is on the collection effort I First, Third, and Ninth Armies. A case study of the information known and interpreted before the German Ardennes counteroffensive on 16 December is made; division level intelligence operations in First Army are considered in detail along with V and VIII Corps after action comments. The study considers functions and problems of intelligence rather than the inter-relationships of events and persons. It is not a comparative study of the armies' intelligence operations, but rather an examination of the strengths and weaknesses of those operations.							
19990726 097							
14. SUBJECT TERMS World War II; Combat intelligence; Intelligence collection; Intelligence processing					15. NUMBER OF PAGES 204		
					16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT U		18. SECURITY CLASSIFICATION OF THIS PAGE U		19. SECURITY CLASSIFICATION OF ABSTRACT U		20. LIMITATION OF ABSTRACT U	
NSN 7540-01-280-5500							Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. Z39-18 298-102

THE COLLECTION AND PROCESSING OF COMBAT INTELLIGENCE
AS PERFORMED BY THE U.S. ARMY DURING OPERATIONS IN
NORTHERN EUROPE

An abstract for a thesis presented to the Faculty of
the U.S. Army Command and General Staff College in
partial fulfillment of the requirements of the
degree of

MASTER OF MILITARY ART AND SCIENCE

JARED B. SCHOPPER, Major, Infantry

Fort Leavenworth, Kansas
1964

U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE

Name of Candidate JARED B. SCHOPPER, Major, Infantry

Title of Thesis THE COLLECTION AND PROCESSING OF COMBAT
INTELLIGENCE AS PERFORMED BY THE U.S. ARMY DURING OPERATIONS
IN NORTHERN EUROPE

Approved by:

Maria J. Fletcher, Research and Thesis Monitor
James E. Simmons, Assistant Research and Thesis Monitor
James L. Hayes, Assistant Research and Thesis Monitor

Date 5 June 1964

The opinions and conclusions expressed herein are those of the individual student author and do not necessarily represent the views of either The United States Army Command and General Staff College or any other governmental agency. References to this study should include the foregoing statement.

Scope.--This abstract summarizes an analysis of the functions of collecting and processing information into combat intelligence as performed by the U.S. Army in northern Europe during World War II. The time frame is January 1944 to May 1945. Particular emphasis is laid on the direction and results of the information collection effort in First, Third, and Ninth U.S. Armies. A case study of the information known and interpreted before the German Ardennes counter-offensive on 16 December is made; division level intelligence operations in First Army are considered in detail along with V and VIII Corps after action comments.

The study considers functions and problems of intelligence rather than the inter-relationships of events and persons. It is not a comparative study of the armies' intelligence operations, but rather an examination of the strengths and weaknesses of those operations.

Sources.--After action reports of the field armies considered comprise the bulk of source material for the study. Intelligence annexes, estimates, and periodic reports actually used during the period are quoted to substantiate the analysis. Corps and division reports are used to amplify field army records. Published works are occasionally quoted if the writers were firsthand witnesses of a specific combat example or sequence of events.

Chapter Summary.--Chapter I contains the definitions of information, combat intelligence, essential elements of information (EEI), and processing applicable to the period under study.

Chapter II deals with the direction of the collection effort. Charts showing the collection agencies available to the field army G2 and the placement of intelligence specialist teams at army, corps, and division are included. The use of EEI and standing operating procedure to direct the collection effort are discussed. The G2 plan or collection worksheet is shown to have been seldom used in combat.

Considerable attention in Chapter II is devoted to the effort in First and Third Armies to set up effective aerial reconnaissance request channels. The problems of achieving coordination with supporting tactical air commands in England and on the Continent and the establishment of the field army photographic interpretation center are described. First Army's plans for gaining basic photographic cover of the Cotentin Peninsula and visual reconnaissance of German reinforcement routes into Normandy are considered along with the necessity for ground liaison officers and multiple means of communication between airfields and the army photo center and tactical command posts. Third Army's recommendation of aerial reconnaissance coverage for field army to a depth of

150 miles beyond the line of contact is discussed. First Army's requirements for maps for the initial phases of Operation OVERLORD and the procurement of weather information are outlined.

Chapter III deals with the results of the collection effort. Information agencies and sources are discussed, and an estimate of their relative value is reached. Among the agencies and sources discussed are: (1) the interrogation of prisoners and civilians; (2) Office of Strategic Services Secret Intelligence Teams attached to field army; (3) radio intercept; (4) documents; (5) aerial reconnaissance. The value of prisoners in producing order of battle information is stressed. The limitations of civilian interrogation and document examination are shown. Brief examples of the usefulness of radio intercept are given. Aerial reconnaissance is discussed under the headings of tactical (visual) reconnaissance and photographic reconnaissance. Several examples of the use of tactical reconnaissance in First and Third Armies are given; the difficulties of Ninth Army in achieving effective aerial photographic support are traced. Chiefly, Ninth Army was hindered by bad weather, initially cumbersome channels of request, and late distribution of prints. The Army L5 plane's use as a partial solution to these problems is developed.

Chapter IV considers the collection and interpretation of information within First, Third, and Ninth Armies before the German Ardennes counteroffensive. First Army's VIII Corps is surveyed by division to determine enemy division identifications, indications of the impending German offensive, and what interpretations or further efforts at collection were made. An examination of available records of VIII Corps, 9th Armored Division, and 28th Infantry Division shows extractions from the files which prevents a full critique of division intelligence operations. Nevertheless, it is shown by direct examination of intelligence estimates and G2 journals that VIII Corps divisions did not direct a vigorous collection effort to determine the divisions opposing them. Estimates were often held for days and weeks without fresh appraisals of the enemy situation and capabilities. There was little evidence of renewed ground reconnaissance effort after several indications that extensive relief or reinforcement operations were occurring at night in the Eifel Forest. Estimates at division and corps level in VIII Corps reflected the wishful thinking, established by after action interviews, that the German did not have the will, material resources, or favorable terrain to conduct an attack through the Ardennes. In few instances did the armies ascribe the

the capability of conducting a major offensive operation to the German. The recognition of the Fifth and Sixth Panzer Armies as being west of the Rhine was universal, but this mobile reserve was given the capability of conducting limited offensive action in spoiling attacks or counterattacks on Allied forces achieving a crossing of the Roer River. German doctrine for employment of the Siegfried Line is considered to show that the Ardennes counteroffensive was in accord with that doctrine, then in print as an Army manual available for study by G2's.

Conclusions.--The concluding chapter of the study points out the importance of weather as an element of combat intelligence in World War II. The influence of weather was not only critical in tactical operations but intelligence operations as well. The need for an all-weather aerial surveillance capability was clearly developed during our experience in northern Europe in World War II. Despite the hindrances of weather, however, the G2 had excellent sources of information which could only be exploited by a strong, well-planned collection effort. Continual estimates to keep the commander informed and to point out deficiencies in the collection effort are vital in successful intelligence operations. Standing operating procedures alone were insufficient for the collection of information.

THE COLLECTION AND PROCESSING OF COMBAT INTELLIGENCE AS
PERFORMED BY THE U.S. ARMY DURING
OPERATIONS IN NORTHERN EUROPE

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements of the
degree of

MASTER OF MILITARY ART AND SCIENCE

JARED B. SCHOPPER, Major, Infantry

Fort Leavenworth, Kansas
1964

U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE

Name of Candidate JARED B. SCHOPPER, Major, Infantry

Title of Thesis THE COLLECTION AND PROCESSING OF COMBAT
INTELLIGENCE AS PERFORMED BY THE U.S. ARMY DURING OPERATIONS
IN NORTHERN EUROPE

Approved by:

Philip M. Blackett, Research and Thesis Monitor
James E. Simmons Assistant Research and Thesis Monitor
James H. Mayers, Assistant Research and Thesis Monitor

Date 5 June 1964

The opinions and conclusions expressed herein are those of the individual student author and do not necessarily represent the views of either the United States Army Command and General Staff College or any other governmental agency. References to this study should include the foregoing statement.

ACKNOWLEDGMENTS

The author is indebted to the following persons for their efforts in the preparation of this paper:

Colonel Marvin H. Merchant, Faculty Advisor, for his counsel on content and the arrangement of the subject material.

Major James L. Trayers for his editorial aid and guidance.

Sergeant First Class and Mrs. Howard Fisher for their typing and proofreading assistance.

His wife for her patience and understanding through the weeks or research required to write the study.

Their support was indispensable. Without it, the paper would not have been possible.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	iii
LIST OF TABLES	vi
LIST OF ILLUSTRATIONS	vii
Chapter	
I. INTRODUCTION	1
Statement of the Problem	
Sources	
Definitions	
Preview	
II. DIRECTION OF THE COLLECTION EFFORT	13
Collection Agencies	
Achieving Effective Aerial Reconnaissance	
Planning Aerial Photographic Coverage	
Use of Tactical Reconnaissance	
Planning the Procurement of Terrain and Weather Information	
Use of Other Collection Agencies	
Summary	
III. RESULTS OF THE COLLECTION EFFORT	61
Attached Teams	
Aerial Reconnaissance	
Summary	
IV. PROCESSING INFORMATION INTO INTELLIGENCE . .	119
Introduction	
Intelligence Derived in First Army before the Ardennes Counteroffensive	
Intelligence Derived in Third Army before the Ardennes Counteroffensive	

**Intelligence Derived in Ninth Army before the
Ardennes Counteroffensive
German Doctrine of the Stabilized Front
Summary**

V. CONCLUSIONS	179
APPENDICES	183
I. Functions of First U.S. Army G2 Section	
II. Organization of First U.S. Army G2 Section	
BIBLIOGRAPHY	185

LIST OF TABLES

Table	Page
1. Relationship between EEI and Indications . . .	18
2. Distribution of Photo Interpreter Teams within First and Third Armies During Operations in Europe, World War II	44
3. Comparison of Aerial Reconnaissance Missions, Mobile Versus Static Situations, Third U.S. Army	91
4. Tactical Reconnaissance Missions Flown for Third Army During December 1944	95
5. Estimated Days of Flyable Weather, Ninth Army Zone, January 1944	106

LIST OF ILLUSTRATIONS

Figure	Page
1. Field Army Collection Agencies Employed in Europe	14
2. Placement of Intelligence Teams within First Army	15
3. Schematic Diagram of Third Army's Aerial Reconnaissance Support System and Channels of Communication	37
4. Aerial Photographic Coverage of Cherbourg Peninsula	40
5. Third Army Plan for Area Tactical Reconnaissance	92
6. Situation, First and Ninth Army Sectors, 15 Dec. 1944	122
7. Third Army Order of Battle Map, 6 November 1944	160
8. Third Army Order of Battle Map, 13 November 1944	162
9. Third Army Order of Battle Map, 27 November 1944	164
10. German Plan and Table of Subordination for the Ardennes Counteroffensive	173

CHAPTER I

INTRODUCTION

Statement of the Problem

Objective.--The objective of this paper is to analyze the combat intelligence functions of collecting and processing information as performed by the United States Army in northern Europe during World War II. This objective will be accomplished as follows:

1. The activities of planning and supervising the collection of information will be examined.
2. The use of sources of information in northern Europe will be studied to determine their profitability and applicability under the various operational environments that the armies experienced.
3. Within the selected field armies, the processing of intelligence before the German Ardennes counteroffensive will be considered.

Methodology.--This paper is an analysis of techniques and procedures rather than the inter-relationships of events and persons. The examples and case studies of intelligence operations chosen, principally at field army, corps, and

division level within First, Third, and Ninth Armies, are taken from the period January 1944 to March 1945. A comparative analysis of intelligence operations within the armies is not intended; this would tend to deprive the paper of objectivity and concentration on functions and problems. If certain measures worked well for one army, it is the author's purpose to develop these for the consideration of the reader. Similarly, intelligence failures and deficiencies will be presented.

Limitations.--First, the author does not intend to examine the operations of German intelligence for the purpose of comparative study. Second, counterintelligence functions will be considered only as they affected the gathering of combat intelligence. Third, the paper does not purport to treat the study of technical intelligence. Fourth, the paper is not an organizational study. Organizational charts are included only to give the reader a better grasp of the assignment of functions within an army G2 section and the number of personnel used to perform them. For example, Appendix I shows the functions of the First Army G2 Section as they were divided among the principal subsections. Appendix II portrays the breakdown of personnel within each subsection and its various branches. The subsections receiving primary attention in this paper are Combat Intelligence and G2 Air.

Sources

General.--After action reports comprise the bulk of the source material for this paper. Where available to the author, selected intelligence annexes, estimates, and standing operating procedures have been quoted or extracted in order to gain firsthand knowledge of intelligence operations as planned and conducted during the period under study. A brief description of the major sources, listed by field army, is contained in the following paragraphs.

First Army.--The First Army after action report contains intelligence plans and annexes which implemented Operation OVERLORD, code name of the Allied effort to invade the Continent and destroy the German Armed Forces. The army plan for the invasion across OMAHA and UTAH Beaches in Normandy was called Operation Plan NEPTUNE. Book I describes the planning and conduct of the invasion and the subsequent buildup ashore; intelligence and tactical operations are narrated concurrently. Book III of the same report contains the actual intelligence directives disseminated with Plan NEPTUNE. Book V highlights major events in the organization of the intelligence section while First Army Headquarters was in England. In Book V, the establishment and conduct of operations on the Continent until subordination of First Army to 12th U. S. Army Group on 1 August are portrayed;

intelligence estimates and annexes are summarized rather than quoted.

A later First Army "Report of Operations, 1 August 1944 - 22 February 1945" also intermingles tactical and intelligence operations narratives with few quotations of actual orders and documents used in combat. This report is essential to a consideration of First Army intelligence processing before the Ardennes counteroffensive. Extracts and quotations of estimates published in November and the first half of December 1944 are reproduced to show the extent of First Army's assessment of the German buildup in the Eifel Forest.

Third Army.--The most complete references for this study were found in the Third Army "After Action Report, 1 August 1944 - 9 May 1945." The G2 discussed army intelligence operations month by month in Volume II of the report. Many periodic reports, intelligence annexes, and estimates actually used in operations in northern Europe are contained in the G2 Annex to Volume II.

Ninth Army.--Ninth Army reports are limited to after action reports written soon after the operations occurred. These reports were prepared biweekly or monthly and submitted to the War Department within a week or two after the last day of the report period. Although these

references do not contain verbatim extracts of intelligence estimates, they are undoubtedly accurate and unaffected by later editing or the application of hindsight. These reports were microfilmed by the Historical Documents Section of the Adjutant General's Office.

Corps and division.--Various corps and division documents, after action interviews, and G2 statements and conclusions have been included to show the effectiveness of the field army collection effort at lower echelons. The V and XIX Corps left detailed accounts of their intelligence operations during the war. Division accounts of information collection and processing prior to the Ardennes counteroffensive have been taken largely from an unpublished work by the Historical Division, Special Staff, U. S. Army called "American Intelligence on the German Counteroffensive, 1 November - 15 December 1944," edited by Royce L. Thompson. References to this paper include primarily the direct quotations of intelligence estimates and periodic reports prepared by G2's of divisions in V and VIII Corps who were in contact with the German just before and at the time of the Ardennes counteroffensive.

Published works.--References to published works, such as A Soldier's Story and Lucky Forward, have been included in the study, if in the opinion of the author, the

writers of such books were firsthand witnesses of a specific combat example or sequence of events.

Definitions

Information.--During World War II, information was "all documents, facts, or observations of any kind which serve to throw light on the enemy or enemy-held terrain." The definition was further understood to include "weather which will effect [sic] our operations or the manner of performance of our mission."¹

Combat intelligence.--As defined currently in the Army Dictionary and also as understood by the other Services and the military forces of the English-speaking nations of the North Atlantic Treaty Organization, combat intelligence is:

That knowledge of the enemy, weather and geographical features required by a commander in the planning and conduct of tactical operations.²

This definition is concise and readily understood. At the outset of World War II, Volume X of the War Department Basic Field Manual fully defined combat intelligence:

¹U.S. Army Command and General Staff School, 13th GS Course, Vol. 2, Schedule 34-W-13-GS "Enemy Capabilities, Essential Elements of Information, and Indications" (Ft. Leavenworth, Kansas: USACGSS, April-June 1943), p. 1.

²U.S. Department of the Army, Army Regulation 320-5 Dictionary of United States Army Terms (Washington 25, D.C.: Headquarters, Department of the Army, February 1963).

Combat intelligence is the Military Intelligence produced in the field, after the outbreak of hostilities, by the Military Intelligence Section of GHQ³ and the military intelligence sections of all subordinate units. Usually this class of intelligence [combat] is confined to the terrain and to the location, strength, composition, dispositions, movements, armament, equipment, supply, tactics, training, discipline, and morale of the enemy forces opposing a combat unit and the deductions made from a consideration of these factors. In the army and higher organizations it includes the broader aspects of military intelligence of particular importance in strategic decisions.⁴

The above definition hinges on the meaning of the term military intelligence, defined by the same reference as:

. . . collated and evaluated information concerning a possible or actual enemy, or theater of operations, together with the conclusions drawn therefrom. It includes information concerning the enemy capabilities or the possible lines of action open to him, as well as all that relates to the territory controlled by or subject to his influence.⁵

These definitions either state or imply the procurement and interpretation of information. In addition, the first definition is specific in listing what the commander needs to know about the enemy in order to plan and conduct tactical operations against him.

Weather is not mentioned in the foregoing definition

³ War Department General Staff.

⁴ U.S. Army Command and General Staff School, Lecture II-6 "Principles of Military Intelligence," Volume 10 (G2 subjects) in unpublished series of lectures presented to the Regular Class of 1939-1940, pp. 3, 4.

⁵ Ibid., 3.

of combat intelligence. However, its effects on friendly and enemy use of terrain and visibility were included in the "miscellaneous" section of the format for G2 work sheets in a military intelligence exercise presented at the Command and General Staff School during the same period.⁶ In instruction presented at the School in 1939 on information collection, only the enemy and the terrain were given pre-eminence as the unknowns facing the commander. However, information of weather was not ignored. In a lesson on combat intelligence, an example of the influence of weather on terrain was taken from General Washington's successful crossing of the Delaware River and his subsequent defeat of the "unsuspecting Hessians at Trenton."⁷

As the war progressed the importance of weather in the collection effort was increasingly emphasized. In mid-1943, students at the Command and General Staff School were taught that "weather conditions over enemy territory as may be necessary to our operations would sometimes form an 'Essential Element of Information'"⁸ needed by the

⁶ U.S. Army Command and General Staff School, Exercise No. 9 "Military Intelligence," ibid., p. 1.

⁷ Lecture II-8 "Military Intelligence Factors in the Commander's Decision and Essential Elements of Information," p. 2.

⁸ This term will be defined later in the chapter.

9

commander.⁹ By April 1944, the definition of combat intelligence had become essentially what it is today:

. . . evaluated and interpreted information concerning the enemy, terrain, and meteorological conditions together with the conclusions drawn therefrom.¹⁰ (Underling supplied.)

Essential elements of information.--All information required by the intelligence officer for the production of combat intelligence was not classified as urgent or immediately necessary for the commander to make his decision. To concentrate the collection effort, the term essential elements of information (EEI) was used. These were recommended by the G2 to the chief of staff for approval; however, their announcement was considered a command function. In the doctrine of World War II, EEI were those questions of enemy, terrain, and weather considered vital to the commander "in any particular situation."¹¹ They were needed by him to:

- (1) make a sound decision, (2) conduct a particular maneuver,

⁹ U.S. Army Command and General Staff School, Schedule 33-W-13-GS "Combat Intelligence," Volume 2, 13th GS Course, April-June 1943, Annex "Steps in the Production of Combat Intelligence."

¹⁰ U.S. Army Command and General Staff School, Instructional Booklet "Intelligence Handbook" (Ft. Leavenworth, Kansas: USACGSS, April 1944), p. 1.

¹¹ Idem., 13th GS Course, Vol. 2, Schedule 34-W-13-GS "Enemy Capabilities, Essential Elements of Information, and Indications", p. 1.

(3) formulate the details of a plan of action, or (4) avoid surprise.¹² An EEI was to be "expressed as an order to secure vital information" and to be received as "a directive for the employment of reconnaissance or information-gathering agencies."¹³ These orders, normally written as questions, were to be tentatively or partially answered by indications prepared by the G2. These indications consisted of a series of related acts or omissions by the enemy which suggested a particular enemy capability or "line of action" applicable to the EEI under consideration.¹⁴ Negative, as well as positive information, was to be sought to substantiate these indications.

Processing.--The step in the intelligence cycle today known as processing was called "examination of information" in World War II intelligence terminology. It was a three-step operation. First, the intelligence officer evaluated the information for accuracy of content and "reliability of its source." Second, it was tabulated or "classified according to subject matter." The final and most important step was to interpret the information in the light

¹² Ibid., Schedule 33-W-13-GS "Combat Intelligence," Annex "Steps in the Production of Combat Intelligence," p. 1.

¹³ Ibid., Schedule 34-W-13-GS, 1.

¹⁴ Ibid., 2.

of other information on the same subject. So interpreted, the information became combat intelligence. In a fast-moving situation, tabulation could be postponed.¹⁵ Evaluation could often be completed in a matter of seconds. As suggested in Chapter III, G2's attached from experience and daily contact an estimate of reliability to their various sources of information. Interpretation was the real business of the G2 and the ultimate measure of his worth. This step of processing will receive primary attention in Chapter IV.

Preview

Chapter II.--Chapter II "Direction of the Collection Effort" will deal with the sources of information prior to OVERLORD and in selected operations on the Continent. The kinds of information the armies sought and the manner and frequency of collection will be among the topics explored.

Chapter III.--Chapter III will deal with the "Results of the Collection Effort." Those sources in which G2's came to place particular reliance because of their accuracy and dependability will be noted. Certain experiences illustrating the solution of collection problems will be

15

Ibid., Schedule 33-W-13-GS "Combat Intelligence," Annex "Steps in the Production of Combat Intelligence."

developed.

Chapter IV.--Chapter IV "Processing Information into Intelligence" will deal with the period preceding the German counteroffensive through the Ardennes. A case study of information interpretation and, to a lesser extent, the use and dissemination of intelligence will be analyzed.

Chapter V.--The last chapter will state the major conclusions of the study in order to focus the reader's attention on the characteristics of combat intelligence operations as performed in the European Theater of Operations.

CHAPTER II

DIRECTION OF THE COLLECTION EFFORT

Collection Agencies

Typical sources of information.--Before considering the G2's direction of the collection effort, it is advisable to examine briefly the means available to him in World War II. Figure 1 shows the agencies employed at army level. Many of the agencies shown were either organic or attached teams of specialists from higher headquarters. OSS, IPW, MIC personnel (military intelligence interpreters), and photo interpreters were teams from personnel pools at theater army. Figure 2 shows how these teams were normally attached at army, corps, and division level.

Field army research library.--Third Army recorded in detail the effort of a newly formed army staff preparing for an invasion. During the period February through May 1944, an army research library was formed and operated by the situation subsection or combat intelligence branch. Strategic Engineering Studies, Intelligence Service Information Reports, and Inter-Service Topographical Department Reports, all mainly of British origin, were obtained to set up

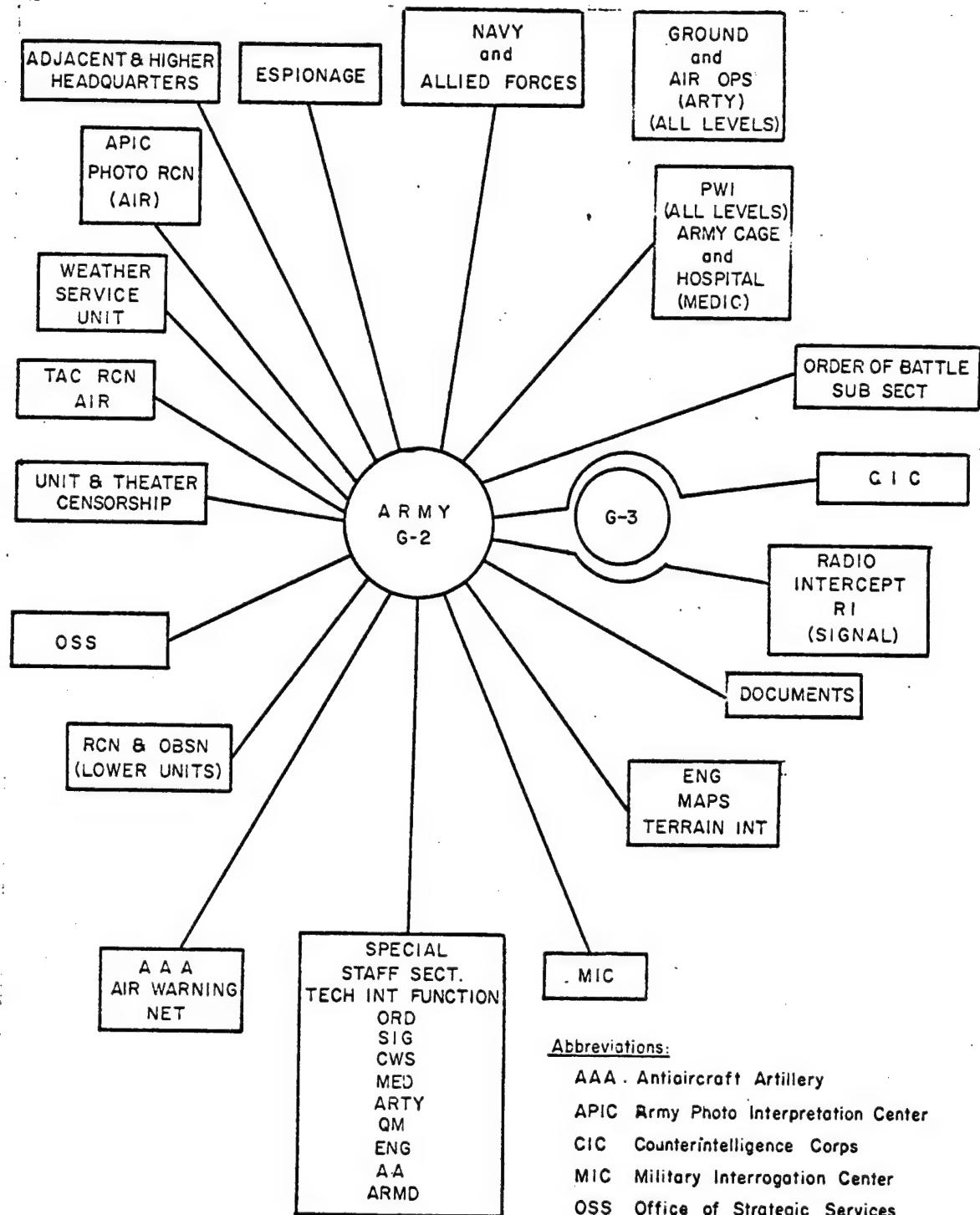
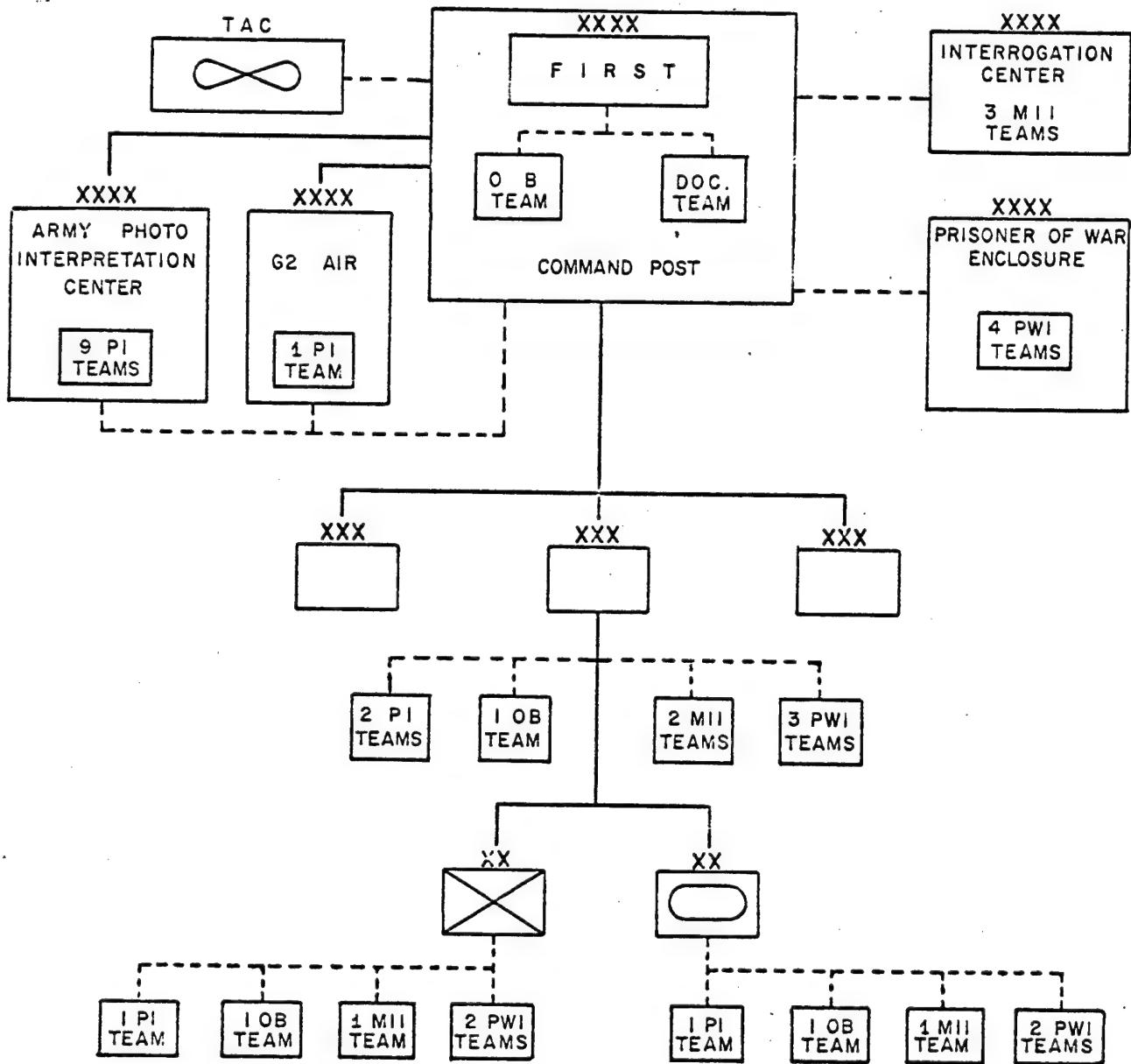


Fig. 1.--Field Army collection agencies employed in Europe^a

^a Based on: First U.S. Army, "Combat Operations Data, First Army, Europe 1944-1945" (Governors Island, New York 4, N.Y.: Headquarters First Army, 18 Nov 46), illustration facing p. 159.

NOTES

--- Attached Teams

PI Photo Interpreter Team (2 Offs, 4 EM)

OB Order of Battle Team (1 Off, 2 EM)

MII Military Intelligence Interpreter Team (2 Offs, 4 EM)

PWI Prisoner of War Interrogation Team (2 Offs, 4 EM)

Fig. 2.--Placement of intelligence teams within First Army^a

^aReproduced from: First U.S. Army, "Combat Operations Data, First Army, Europe 1944-1945" (Governors Island, New York 4, N.Y.: HQ First Army, 18 Dec 46), illustration facing p. 160.

dossiers on general topography, communications, beaches, defenses, and military resources. Maps of the Geographical Section General Staff (GSGS), principally of scales 1:250,000 and 1:100,000, of the British Army became standard at field army level for the planning of OVERLORD and the preparation of target area analyses.¹ Hydrographic charts, submarine reconnaissance reports, aerial photographs and beach profiles and panoramas were assembled for coastal defense studies.² The library established by the G2 section was open to all members of the staff for study and research during the planning phase.³

Assistance from higher headquarters.--The armies were completely reliant on intelligence summaries and studies from higher headquarters during the planning phase in England, although some order of battle information was gleaned from enemy broadcasts and press reports.⁴ For example, Supreme Headquarters, Allied Expeditionary Force (SHAEF) forwarded as automatic distribution to European Theater of Operation (ETO) field armies a "Weekly Intelligence Summary." This

¹ Now called analysis of area of operations (FM 30-5).

² Third U.S. Army, "After Action Report, 1 August 1944 - 9 May 45" (HQ Third Army, APO 403, 15 May 45), Vol. II, G2 Section, pp. 5, 6.

³ Ibid., G2 Annex, 2.

⁴ First U.S. Army, "Report of Operations, 20 October 1943 - 1 August 1944" (HQ First Army: n.d., 1945), Book V, p. 123.

document gave important order of battle information and summarized enemy activities on other army fronts.⁵ Weather forecasts were also of standard format and distribution, but for the most part, the army G2 had to direct by timely well-planned action the collection of information.

G2 Plan.--Doctrinally, an early step in the collection function involved the preparation of the "G2 plan." This plan consisted of a table of EEI, indicators, and remarks of the G2's use in determining enemy capabilities and their probability of adoption. The plan was used to assign specific questions regarding time, place, enemy strength, and activity for each indication to information-gathering agencies.⁶ Table 1 illustrates the relationship among EEI, indications, and the type information that would tend to confirm an enemy attack capability. The author, despite an extensive search of available materials, was unable to locate a G2 plan (now called a collection worksheet) which was prepared at field army level in combat. The G2 plan was a working paper within the staff and was never disseminated

⁵ 12th U.S. Army Group, "A Study of Operations of the G2 Intelligence Branch in the 12th Army Group, 1 August 1944 to 9 May 1945" (Headquarters 12th Army Group G2 Intelligence Branch, APO 655, 1 July 1945), p. 11.

⁶ U.S. Army Command and General Staff School, 13th GS Course, Vol. 2, Sched. 33-W-13-GS, Annex "Steps in the Production of Combat Intelligence" (Ft. Leavenworth, Kansas: USACGSS, April-June 1943), p. 1.

TABLE 1

RELATIONSHIP BETWEEN EEI AND INDICATIONS ^{a, b}

EEI deal- ing with:	Basic Indications	Remarks
Attack	<p>(1) Establishment of a counter-reconnaissance screen to cover possible assembly areas for hostile forces.</p> <p>(2) Movement of hostile troops toward assembly areas.</p> <p>(3) Disposition of artillery in areas from which it can support the attack.</p> <p>(4) Active patrolling by the enemy.</p> <p>(5) Covering forces being reinforced or replaced by new units.</p> <p>(6) Enemy battalions disposed on relatively narrow frontages.</p> <p>(7) Registration of hostile field artillery upon points within our defensive position.</p>	<p>Routes of movements and general location of assembly areas should be specified. In an attack, artillery areas are usually well forward.</p> <p>Cavalry being replaced or reinforced by infantry may be an indication of an attack.</p> <p>A battalion usually attacks on a frontage of 500-1000 yards.</p>

^a Extracted from: U.S. Army Command and General Staff School, 13th GS Course, Vol. 2, Sched. 34-W-13-GS, Instructional Handout "Essential Elements of Information" (Ft. Leavenworth, Kans.: USACGSS, Apr-Jun 43).

^b This table illustrated what might be used at division level; however, it was taught that the technique above would apply at any level of command in combat.

outside the intelligence section. Further, the plan was as changeable as the tactical situation and was subject to errors and omissions in the remarks column. It is likely that even historical-minded G2's were either relectant or did not have time to reconstruct their working papers for later study. This is understandable but unfortunate for the student of intelligence operations.

Use of Essential Elements of Information (EEI).--EEI

published by field army usually originated at that level and constituted directives for subordinate units and intelligence agencies to find and report to field army information pertaining to its EEI.

In the Intelligence Plan to Operation Plan NEPTUNE, dated 25 February 1944, First Army published fourteen EEI in preparation for the Normandy invasion. Most were of obvious significance to the success of the assault landings, as shown by the first two elements below:

2. ESSENTIAL ELEMENTS OF INFORMATION

* * * *

b. To what extent can German air damage our concentration and embarkation and delay our approach to shore? What density of air opposition may be expected during our landing, our build-up and our advance inland?

c. In what strength will the enemy defend the beaches and with what units? When, where, and with what

local reserves will be attack our bridgehead [sic]?⁷

Elements of significant, but remote, effect on the immediate success of the landings were:

g. Can the enemy bring reinforcements against us from the Italian, Balkan, or Russian fronts? If so, when and what units?

h. Will the enemy demolish port and traffic facilities? If so, where and to what extent?⁸

Specific collection missions were not assigned to V and VII Corps in that directive.⁹

A partial explanation for the high number of First Army EEI for NEPTUNE is found in the three-phase mission of the army: (1) the assault landings and establishment of beachheads by V and VII Corps, (2) the linkup of the V and VII Corps, and (3) the seizure of Cotentin Peninsula and capture of Cherbourg.¹⁰ A detailed consideration of all EEI and how they were answered will not be attempted; an account follows of the actual events which took place in reference to the EEI listed above.

It was estimated that enemy air possessed a capability to deliver 1,800 sorties a day on D-day decreasing to 1,000 sorties a day by D+5. The Luftwaffe attacks did not begin until D+1, "when six aircraft strafed the VII Corps

⁷

First Army, "Report of Operations, 20 October 1943 - 1 August 1944," III, 9.

⁸

Ibid.

⁹

Ibid., 9-20.

¹⁰

Ibid., I, 25-27.

beach, four of the six being destroyed by antiaircraft fire." Limited attacks were made against the beaches and shipping during the night of D+1; but, the major effort of German air was offshore minelaying, which prevented neither the buildup nor the advance inland. German air was ineffective; for, about 25 percent of the 1,249 attacking aircraft were destroyed by antiaircraft fire alone from D-day to D+56. Information on Luftwaffe attacks was provided largely by the integrated services of the IX Tactical Air Command Warning Service and the Antiaircraft Artillery Information Service, the later operating under First Army control.¹¹

Six divisions of the German Seventh Army were estimated to be in the Cotentin Peninsula,¹² three of which could oppose First Army landings on D-day.¹³ The 352nd German Infantry Division, which had moved to OMAHA Beach a few days earlier for a tactical exercise, appeared there unexpectedly. It took V Corps until the evening of D+1 to complete the identifications of all major units of this division.¹⁴ Before NEPTUNE, it was estimated that fifteen

¹¹ Ibid., I, 74-76

¹² Ibid., 37.

¹³ V U.S. Corps, "Intelligence Operations of the V. U.S. Corps in Europe" (HQ V Corps, 4 Jan 46), p. 31 showing "G2 Estimate of the Enemy Situation - Operation NEPTUNE," 15 May 44, Annex I "Table of Reinforcements (Divisions)."

¹⁴ Ibid., 37.

divisions would be within reinforcing distance of the beaches by the evening of D+3.¹⁵ Only three divisions had actually reinforced the beaches by D+3 and at least three more by D+10. Enemy attempts at reinforcement were piecemeal and consisted of filling gaps in German defenses rather than strong, well-planned counterattacks.¹⁶ Only thirteen enemy divisions had faced First Army by 24 July (D+49). Of these, one parachute, one panzer, and four infantry divisions had been drawn from reserves in Denmark and other parts of France.¹⁷ No major units had been drawn from the German Fifteenth Army defending the Calais area north of the Seine River--the deception effort directed at Pas-de-Calais had worked well.

As late as 1 August, no reinforcements from other than the Western Front were identified by First Army units. Captured German documents later revealed that by that time Field Marshal von Kluge, Commander-in-Chief West, had submitted a frantic request for "fresh troops" to the German High Command.¹⁸

¹⁵ V Corps, "Intel Ops . . . Europe," 31.

¹⁶ First Army, "Rept of Ops, 20 Oct 43 - 1 Aug 44," I, 77.

¹⁷ Ibid., 91, 92.

¹⁸ Ibid., 114-116, quoting "Extracts from Telephone Conversations of Field Marshal von Kluge, C-in-C West, 0100-1045, 31 Jul 44."

Regarding the last EEI quoted, the clearing of Cherbourg by VII Corps' 4th Division commenced on 27 June; and by the 29th, when the last pocket of resistance was eliminated, a survey of German damage to the Cherbourg port facilities was completed.¹⁹ As General Bradley wrote:

Piers, cranes, marshaling yards, bridges, power stations, and transformers were dynamited and burned. The harbor itself was strewn with scuttled ships and heavily seeded with mines.²⁰

It took the engineers twenty-one days to clear the mines and debris to permit the first Allied vessels to drop anchor.²¹

Thus, First Army's EEI for NEPTUNE were not completely answered until weeks after the landing and establishment of the beachhead. This was because far-reaching questions of logistics and strategic deployment of enemy divisions had been issued to collection agencies.

How did the corps go about answering First Army's EEI? Some insight is gained by considering the V Corps view of the G2 plan:

A complete intelligence plan (or worksheet, showing essential elements of information, indications, agencies, etc) was prepared for the period prior to D-day, and another was prepared for the period D-day to D+1. While the preparation of such

¹⁹ First Army, "Rept of Ops," I, 65.

²⁰ General Omar N. Bradley, A Soldier's Story (New York: Henry Holt and Company, Inc., 1951), p. 313.

²¹ Ibid.

complete plans are [sic] seldom practicable in combat, they were very helpful in the planning stage, particularly in familiarizing all intelligence personnel with the requirements.²² (Underlining supplied.)

When used, the collection plan then was considered by V Corps to have primary value for the orientation of intelligence personnel rather than the corps-wide direction of the collection effort. This view did not reflect intelligence doctrine.

Considerable latitude had been allowed V and VII Corps commanders in their planning of NEPTUNE. Their assigned beaches were some twelve miles apart and further isolated by flooded areas near Carentan. It was concluded early in the planning stage that First Army Headquarters, while still afloat off the Normandy beaches, could do little to influence the operation initially.²³ Similarly, ground reconnaissance was "delegated to corps and divisions except as otherwise specifically ordered." Detailed priorities and guidance were reserved for tactical reconnaissance and aerial photography, discussed later in the chapter.²⁴

Throughout operations in Europe, First Army continued

²² V Corps, "Intel Ops . . . Europe," 36.

²³ First Army, "Report of Operations, 20 Oct 43 - 1 Aug 44," I, 27.

²⁴ Ibid., III, 24.

the policy of allowing the corps to devise their own collection effort within the framework of the EEI. In the army standing operating procedure (SOP) of December 1944, corps and separate divisions were directed:

In the absence of specific reconnaissance missions . . . to procure answers to essential elements of in their respective zones of action, without orders from First Army.²⁵

The V Corps, with First Army for all but two days of operations in Europe, specified a similar procedure for divisions.²⁶ However, specific collection missions were sometimes issued in the intelligence annex to field orders, as in the following case on 16 July 1944:

2. ESSENTIAL ELEMENTS OF INFORMATION.

a. Will the enemy continue to defend his present position? If so, in what force?

* * * *

c. Will the enemy counterattack? If so, when, where and with what force?

* * * *

3. RECONNAISSANCE AND OBSERVATION MISSIONS.

a. First Army. Requests for air reconnaissance and air photos will be submitted daily by this headquarters; particular attention will be given to enemy movements and

²⁵ First U.S. Army, "Standing Operating Procedure" (Headquarters First Army, APO 230, 1 December 1944), p. 20.

²⁶ V Corps, ibid., 167, quoting V Corps SOP dated 16 January 1945.

concentrations in rear areas, to defensive installations of all types, and to the location of enemy artillery.

b. 2d Infantry Division.

* * * *

c. 5th Infantry Division.

* * * *

(4) Observe zone of operations to maximum extent of capabilities for troop concentrations and location of enemy defensive lines, with particular attention to ridge SEPT VENTS (6957) - LA VALLEE (6656) and thereafter successively during the advance to high ground in vicinity of LA FOUQUERIE (6653) . . . and high ground in vicinity of ST. DENIS MAISONCELLES (6647).

(5) Particular attention will be given to troop movements, concentrations, or indications of counter-attack from vicinity of Hill 309 (6951).

d. Corps Artillery.²⁷

* * * *

The direct relationship of the corps EEI to the division reconnaissance mission specified above is obvious. A format similar to this V Corps intelligence annex was continued in an early revision of Field Manual 101-5 after the war, although a "requests" subparagraph was included for higher headquarters.²⁸

Third Army issued EEI in the intelligence annex to the first field order published on the Continent. They were

²⁷ V Corps, ibid., 227 and 228, quoting the intelligence annex to Field Order 12, issued 161800 July 44.

²⁸ U.S. Army Command and General Staff School, FM 101-5 General Staff Officers Manual (Fort Leavenworth, Kansas: 1 October 1945), p. 178.

worded as terse phrases rather than questions. There were twenty of them, covering matters of enemy supply, tactics, enemy reaction to friendly air and artillery, shipping concentrations in Brittany ports, and the "attitude of civilians in the Third Army zone of advance."²⁹ The army G2 used an intelligence estimate on one occasion for the publication of EEI;³⁰ otherwise, their dissemination seems to have been by telephone calls, messages, or memoranda, and existent Third Army records do not reflect these. This was, most likely, due to General Patton's practice of publishing brief directives confirming previously issued fragmentary and verbal orders. Although these directives sometimes contained specific instructions to corps commanders to reconnoiter forward in zone or "maintain aggressive reconnaissance," they never contained EEI.³¹

Army group rarely supervised the collection of information by issuing EEI. Exceptionally, Third Army repeated an exhaustive list of First Army Group EEI in the Combat

²⁹ Third Army "After Action Report", I, Annex 2, III reproducing Annex #3 "Intelligence Annex" to Field Order #1, 4 August 63.

³⁰ Ibid., II, G2 Annexes, LVIII, reproducing G2 Estimate No. 7, 18 Aug 44.

³¹ Examples of these orders are found in: (1) Letter, HQ Third U.S. Army, APO 403, 28 Sept. 44, subject: "Operational Directive," to CG's, XII and XX Corps, and (2) Letter, HQ Third U.S. Army, APO 403, 12 Oct 44, subject: "Operational Directive," to CG, XX Corps.

Intelligence Plan for Operation OVERLORD. Forty-three EEI, covering ground, air, and naval collection missions, were passed on from army group with an added five from Third Army. An analysis of these EEI, labeled in a separate paragraph as "INDICATIONS," was added to guide the collection agencies in their search for the required information. Again, ground units were not confined to particular features or activity in their collection missions; they were responsible for ground reconnaissance within their boundaries and within their capabilities.³²

The After Action Report of the 12th Army Group Intelligence Branch does not discuss EEI. Information was obtained from the armies by "telephonic round-up two or three times a day."³³ From sources outside those assigned or attached to the armies, army group relied heavily on tactical and photo reconnaissance to accomplish missions for the staff. The G2 Air Branch provided a weekly summary of trends of enemy rail and road movement and an analysis of the enemy supply and transport system. This branch was mainly occupied with following up army requests for "timely

³² Third Army, "After Action Report", I, Sp. Annex A, 55.

³³ 12th U.S. Army Group, "A Study of Operations of G2 (Intelligence Branch) in the 12th Army Group (1 Aug 44 to 9 Mar 45)," HQ 12th Army Group, 1 July 1945, p. 9.

and proper accomplishment."³⁴ Its planning and directive effort was remotely linked with Army EEI.

The G2 of XIX Corps³⁵ outlined several conditions to be met before EEI were practical for publication. They should: (1) concentrate on a few important questions, (2) be specific, and (3) include only those questions to which answers can be obtained by agencies with which subordinate units have contact. XIX Corps often issued an informal list of EEI. This list was "given out widely to everyone who might be able to bring in some information."³⁶ Evidence seems to affirm that this practice was more prevalent than the formal issuance of EEI in a document signed or approved by the commander. The front line rifleman's receipt of army or corps EEI thus distributed is open to considerable speculation.

XIX Corps, after using a formal G2 plan on several occasions, concluded that the "larger part of these plans was SOP" and contained much that was unnecessary to write

³⁴ 12th U.S. Army Group, "Report of Operations," Vol. III, G2 Section (Parts I through IV), p. 164.

³⁵ Fighting initially under First Army, XIX Corps also fought under Ninth Army in Europe.

³⁶ XIX U.S. Corps, "Dissemination of Combat Intelligence and The Organization of Intelligence Personnel in Combat," 14 Aug 45, pp. 5, 6. A Critical and Informal Study with Examples Prepared by Col. Washington Platt and Ass't G2's of XIX Corps.

down, because its contents could "be entirely in the heads of those concerned."³⁷

Use of standing operating procedure.--The use of standing operating procedures (SOP) in directing the gathering of information is examined below. Under the heading Spot Reports, First Army called the following information of the enemy SOP, to be sent to the army G2 by the swiftest method available:

- (1) First contact.
- (2) Marked change in enemy situation.
- (3) Attack by aviation, armored, or airborne forces.
- (4) New identifications.
- (5) Enemy strength, compositions, dispositions, and movements.
- (6) Location of enemy minefields, defensive works, antitank positions, and tank obstacles.
- (7) Use of chemicals or new weapons.
- (8) Any information bearing on essential elements or requiring swift reaction.³⁸

Both the source and the information itself, with evaluation ratings of "reliable, credible, or doubtful," were to be included in the spot report unless both source and information were considered reliable. All reports had to include a listing of units which had received the information.³⁹

³⁷ Ibid., 6.

³⁸ First Army SOP, 20.

³⁹ Ibid., 19 and 20.

Other reports required by First Army were:

- (1) Periodic Reports, required daily as of 2400 from corps and separate divisions.
- (2) Operations Reports, if pertinent intelligence deserved mention, at the close of an operation.
- (3) Prisoner of War Interrogation Reports from division and corps after processing at those levels.⁴⁰

Prisoner of war interrogation results, if considered reliable or credible, were to be dispatched by spot report "even if later repeated in the periodic report, or included in the interrogation report."⁴¹

Captured documents likewise occupied a position of high priority in First Army's collection effort by SOP:

- (1) Enemy codes, cipher devices, marked maps, overlays, orders, troop lists, and documents marked "GEHEIM" or "GEHEIM NUR FUR OFFIZIERE".⁴² will be reported and forwarded through intelligence channels by the fastest means available. Other captured documents will be sent back without undue delay. Codes and ciphers will be turned over to Signal Intelligence officers at corps and army as soon as possible.
- (2) Captured documents will be marked . . . with the time and place of capture and with the name of the capturing unit (division or separate units).⁴³

The foregoing reports did not constitute all the SOP reports required by First Army G2. Several others, such as the army IPW team report, used within the section and required of

⁴⁰ Ibid., 20.

⁴¹ Ibid., 21.

⁴² "SECRET" or "SECRET ONLY FOR OFFICERS."

⁴³ First Army SOP, 21.

attached specialists, supplemented the reports listed above.⁴⁴

Achieving Effective Aerial Reconnaissance⁴⁵

First Army.--First Army, as did Third and Ninth Armies, experienced initial difficulty in achieving satisfactory coordination with its supporting air command. The army sent a G2 representative to IX Tactical Air Command on 23 May 1944 to coordinate plans and requests for NEPTUNE. Operations quickly expanded with mounting army requests.

This officer⁴⁶ and the Army Photo Interpretation Detachment, stationed at the airfield, grew into a branch of the G2 section and was named "G2 Air" on 21 June. One PR and two Tac/R squadrons, all part of 67th Reconnaissance Group, flew missions for First Army.⁴⁷ Despite the proximity of the G2 Air representative to the airfield in England, all reconnaissance requests before D-day had to be relayed through the 21st British Army Group⁴⁸ to an "Interservice

⁴⁴ Ibid., 21-23.

⁴⁵ As used in ETO, this term included both visual or tactical reconnaissance (Tac/R) and photographic reconnaissance (PR).

⁴⁶ G2 Section Photo and Map Officer.

⁴⁷ First Army, "Report of Operations," V, 126.

⁴⁸ Field Marshal Montgomery's command which retained control of First Army until 1 August.

Reconnaissance Committee" for action. Completion of all requests was doubtful; before D-day, reconnaissance was held to "a minimum for security reasons."⁴⁹

First Army records an interesting sidelight on the direction of aerial reconnaissance before the invasion. To lend credibility to the theater commander's deception plan of making the German believe the landings would occur in the Pas-de-Calais area, twice as many missions were flown over that area as were flown over the Normandy beaches. The missions had an additional purpose; they were to reveal movement of German divisions from the Calais area to Normandy.⁵⁰

Immediately preceding D-day, First Army planned and asked for:

. . . last-minute aerial reconnaissance . . . of 21st Army Group to secure visual observation and photography covering the following items: last-minute changes in enemy beach defenses, especially underwater obstacles, new wire, minefields or evidence of reinforcements, such as increase in flak, constructional activity, evidence of new installations or bivouacs, movement of railroad artillery, additional artillery emplacements, etc.⁵¹

Planning in advance for the first seven days of the operation, First Army directed the corps to foresee "prearranged reconnaissance missions" and submit these requests to

⁴⁹ First Army, "Report of Operations," III, 24.

⁵⁰ Ibid., I, 46.

⁵¹ Ibid., III, 25.

the Ninth Air Force Air Support Command. To preclude duplication of requests, the army G2 listed specifically in the NEPTUNE Intelligence Plan the routes and locations to receive priority of attention by army:

1. Known and suspected bivouac areas of "enemy mobile divisions."
2. Evidence of "demolitions on bridges along highways."
3. Railroad traffic on routes "leading to the Cherbourg Peninsula."
4. Route reconnaissance of specified routes likely to be used by mobile reserves.
5. Surveillance of the port of Cherbourg for demolitions.
6. Changes in the occupation, use, and serviceability of key airfields on the Cotentin Peninsula.⁵²

The times of these flights were specified in broad guidance for the supporting reconnaissance group: "at first good light, around noon, last good light, and once nightly if possible." Reports of the flights, positive or negative, were to be sent to corps and divisions when sent to First Army. Additional provision for positive sightings included pilots' inflight radio reports of enemy mobile force movements directly to corps and forward divisions.⁵³

Third Army.--Third Army also had problems in achieving effective aerial reconnaissance, but solutions were reached

⁵² Ibid., III, 25.

⁵³ Ibid.

before the army became operational. Initially, with no supporting reconnaissance group, Third Army's requests for basic photographic cover of Brittany had to be processed through the Director of Reconnaissance, Ninth Air Force. This proved a slow, ineffective channel for receipt of the desired coverage. On 11 April, the XIX Tactical Air Command (TAC) was assigned to support Third Army. Reconnaissance flown by XIX TAC supplemented the information already given Third Army by First Army Group and expedited the assembly and study of the Brittany terrain and German defenses. This project, completed by 23 April, was the first accomplished by G2 Air.⁵⁴

Another problem met and solved by Third Army was the training and assignment of ground liaison officers (GLO) to airfields of the reconnaissance squadrons of XIX TAC. Third Army G3 Air, already established, provided the first several officers shortly after the authorization of G2 Air on 23 May.⁵⁵

These officers were trained at the Royal Air Force School of Army Cooperation for Ground Liaison Officers. Essentially, they: (1) oriented supporting reconnaissance squadrons on types of information desired by ground units,

⁵⁴ Third Army, "After Action Report," II, G2 Section, 4.

⁵⁵ G3 Air, First Army Group, visited the Fifth U.S. and Eighth British Armies in Italy in the winter of 1943-44 and observed the air-ground liaison sections operating with those armies. Army G3 Air sections in ETO resulted from this visit.

(2) clarified reconnaissance missions for action pilots, (3) briefed them on the changing tactical situation, (4) debriefed them on return from their missions, and (5) insured rapid dissemination of the information to army, corps, and division G2 Air's. These services were particularly necessary, because in May 1944 squadrons in ETO "had done only strategic and photo reconnaissance and had no experience in combat reconnaissance for ground information." To train reconnaissance squadrons in combat reconnaissance. Third Army insisted that its GLO's be infantry, artillery, or armor officers.

To establish priorities and equalize the workload among supporting squadrons, G2 sent an air reconnaissance coordinating officer (ARCO) to XIX TAC to work with the reconnaissance officer of the supporting Air Force reconnaissance group. After receipt and consolidation of army, corps, and division requests each day at 1800, these two officers determined priorities and prevented overlapping effort.

Figure 3 shows the multiple means of communication and coordination planned for the Third Army aerial reconnaissance system. Air liaison officers (ALO) of XIX TAC

⁵⁶ Third Army, "After Action Report," II, G2 Section, 4, 5.

⁵⁷ Ibid.

CHANNELS OF COMMUNICATION WITH
THIRD ARMY RECONNAISSANCE AIRFIELD AND PHOTO CENTER

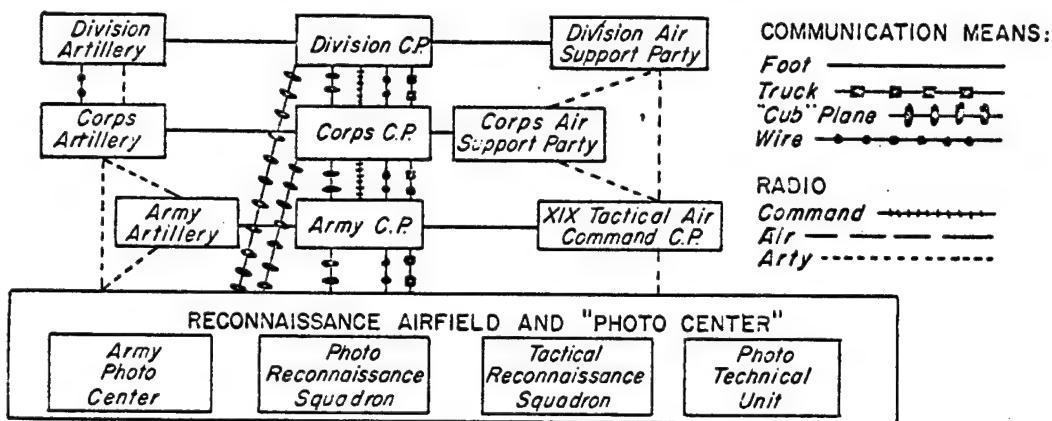


Fig. 3.--Schematic diagram of Third Army's aerial reconnaissance support system and channels of communication^a

^a Reproduced from: Third U.S. Army, "After Action Report, 1 August 1944-9 May 1945" (HQ Third Army, APO 403, 15 May 45), Vol. I, Annex "Third U.S. Army Outline Plan - Operation OVERLORD," p. 57.

headed the air support parties at corps and division. They advised G2's at those levels in the planning of reconnaissance and photo missions. ⁵⁸

Ninth Army.--The difficulties encountered by Ninth Army in establishing effective aerial reconnaissance were not solved until several months after the army had become operational. These problems caused Ninth Army to achieve

⁵⁸

When Third Army became operational, ALO's were not authorized in TAC T/O's. In a special report on 30 Sep 44, General (then Brig. Gen.) O. P. Weyland, commander of XIX TAC, recommended that field grade ALO's be added to the TAC T/O. Three support parties were recommended for each armored division. (Third Army, "After Action Report," I, Annex No. 3 "XIX TAC Command Report," p. 1.)

minimal results from the supporting air reconnaissance effort. For that reason, the experience of Ninth Army will be discussed in Chapter III "Results of the Collection Effort."

Planning Aerial Photographic Coverage

First Army.--The planned use of aerial photographs for Operation NEPTUNE by First Army is best described by extracting paragraph 15, Aerial Photography of the Intelligence Plan.

a. Photography Provided for Planning Staffs Prior to D-day. * *

(1) Basic Coverage. 1/20,000 to 1/30,000 vertical photography, without overlap, of the Cherbourg Peninsula.

(2) Beach Coverage.

(a) 1/10,000 or larger vertical coverage of the coastline in the First U.S. Army sector to a depth of 4,000 yards inland, with sufficient overlap for a stereoscopic study.

(b) Oblique coverage of the coast for topography and hydrography.

(c) Oblique coverage of the coast from sea-level altitude to provide panoramas of the landing beaches.

(3) Inland Coverages of the Assault Area. 1/15,000 to 1/20,000 vertical photography of a strip ten miles deep from the coast, excluding the 1/10,000 vertical coverage mentioned above, with sufficient overlap for stereoscopic study.

(4) Special Coverage of Critical Areas. 1/10,000 or larger, vertical coverage with sufficient overlap for stereoscopic study, will be provided of the following areas:

(a) Cherbourg, including local defenses, Valognes, Carentan, Isigny, and St. Lo.

(b) The inundated areas in the Aure Valley between Isigny and Bayeux and those between Quineville and Le Grand Vey.

(c) The crossings of the River Aure between Treviores and Bayeux.

(d) The area bounded by a line Carteret - St. Saveur-le-Vicomte - Ste. Mere-Eglise - Carentan - Periers - Gefosse for selection of dropping zones and study of zones of action for airborne troops.

(5) Other Special Coverage. * * *

(a) Enlargements of landing beaches, dropping zones and other vertical areas.

(b) Current photographs showing progress of inundations, constructions, or other changes in the situation.

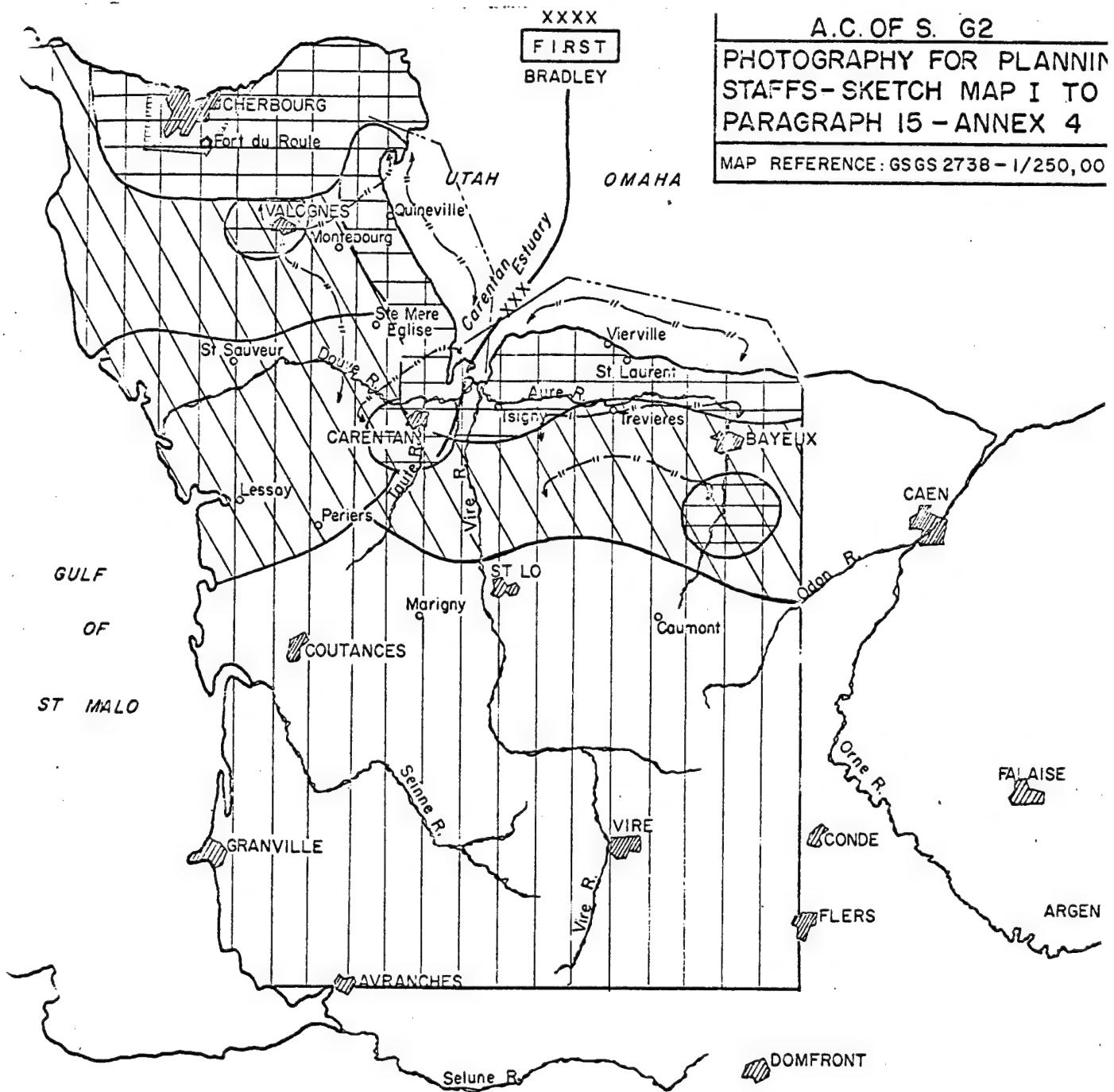
(6) Artillery Obliques. Merton gridded obliques (American grid) of the landing beaches will be provided in three successive overlapping strips from 2,000 yards offshore to 24,000 yards inland.⁵⁹

Figure 4 shows First Army's requested coverage of Cherbourg Peninsula.

Three different coverages--one vertical and two oblique--were requested for issue to subordinate units and subsequent orientation of the assault divisions. Twenty-five copies of each photograph went to each division. The gridded oblique photographs were required for adjustment of naval gunfire and orientation of observers and pilots for

⁵⁹

First Army, "Report of Operations," III, 16, 17.



1:20,000 - 1:30,000
VERTICAL COVERAGE

OBIQUE COVERAGE

1:15,000 - 1:20,000
VERTICAL COVERAGE

1:10,000 - OR GREATER
VERTICAL COVERAGE

MERTON GRIDDED
OBIQUE COVERAGE

Fig. 4--Aerial photographic coverage of Cherbourg Peninsula^a

^a Based on: First U.S. Army, "Report of Operations, 20 October 1943-1 August 1944" (HQ First Army, 1945), Book III, p. 36.

adjustment of fire and delivery of airstrikes.⁶⁰

The requirement in subparagraph (3) above was estimated to carry V and VII Corps through D+7. The estimate was reasonably accurate--particularly in the VII Corps area. The V Corps advance to Caumont by 12 June outstripped the estimated coverage.

The large-scale basic cover requirement of the peninsula seems staggering; yet the requirements for aerial photographs continued, although Tac/R played a greater role than PR after the beachheads were established. One million prints were issued to First Army units from D-day to 1 August. These resulted from 282 PR missions, at least half of which were flown while the 67th Reconnaissance Group and the First Army Photo Interpretation Detachment were still in England.⁶¹

Third Army.--Third Army, anticipating mobile combat, planned SOP basic PR coverage 12 miles forward of the front line "with a greater depth along routes of advance." Corps and divisions were relieved of the responsibility of submitting requests for coverage within this distance, although they were encouraged to submit emergency requests--to be

⁶⁰ Ibid., 17 and 18.

⁶¹ Ibid., V, 127.

granted the "highest priority"--if necessary.⁶² In completing emergency requests, the supporting photo reconnaissance squadron made three sets of rush prints for each photograph taken; two of these went direct to the requesting unit and one remained with the Third Army Photo Center for interpretation.⁶³ By 1 August 1944, the XIX TAC command post (CP) was set up near the army CP to simplify coordination of requests and supervise the distribution of developed prints. Air Force support was responsive and easily obtained.

August 1944 proved a trying month for the Third Army Photo Center. Often, requests submitted in the afternoon were cancelled that night because Third Army units already possessed the roads or areas of which photographs were desired. The army had to appeal a matter of policy with 12th Army Group. Army group basic cover for terrain studies took precedence with Ninth Air Force over Third Army operational requirements. "Arrangements were made that army operational photographs for immediate use would take precedence over basic cover photography." At the end of August and three months of operations, the Third Army Photo Center had distributed over 3,360,000 prints to army units. It was not until Third Army was slowed down at Metz and the Siegfried Line

⁶² Third Army, "After Action Report," I, Annex 8 (G2 Plan) to Operation OVERLORD, 57.

⁶³ Ibid., II, G2 Section, 9.

that the basic photo cover planned before OVERLORD was flown with consistently useful results.⁶⁴

Third Army G2 also announced in the OVERLORD Intelligence Plan that night photo reconnaissance was anticipated in view of the enemy's loss of air superiority and consequent movement at night:

The British have organized satisfactory night reconnaissance by fast Mosquitoes equipped with navigational aids and carrying a maximum of eight 100-lb or 300-lb magnesium flash bombs. A U.S. project exists for night photography by a high-intensity quartz gas-filled flash-lamp. This headquarters understands that night air photography will be available, and plans are being made involving its exploitation.⁶⁵

Third Army also describes the establishment of the Army Photo Interpretation Center. On 28 April, G2 Air submitted to XIX TAC consolidated corps requests for gridded oblique photos. The lack of trained personnel to complete the gridding of the photos held up delivery until 15 May. A few trained photo interpreters joined G2 Air on 3 May; but the establishment of the Third Army Photo Center was delayed until 22 May, the date of assignment of 10th Reconnaissance Group to XIX TAC in support of Third Army. The Military Intelligence Service of European Theater of Operations, U.S. Army (ETOUSA) assigned thirty-two teams to Third

⁶⁴ Ibid., 12.

⁶⁵ Ibid., I, Annex 8 (G2 Plan) to Operation Plan OVERLORD, 57.

Army by late June. The teams were distributed to the four corps and twelve divisions of Third Army and are shown in the second line of Table 2.⁶⁶

TABLE 2

DISTRIBUTION OF PHOTO INTERPRETER TEAMS WITHIN FIRST, THIRD, AND NINTH ARMIES DURING OPERATIONS IN EUROPE, WORLD WAR II^a

	Army Photo Center	Army G2 Air	Per Corps	Per Division
First Army (operational)	9 ^b plus det of 2 0, 35 EM	1	2	1
Third Army (initial)	3	1	4	1
Third Army (operational)	9-1/2 ^b plus det of 2 0, 26 EM	1	2-3	1
Ninth Army (operational)	5 ^b plus Det of 2 0, 35 EM	1	2	1
Recommendation, 12 Army Gp Conf, 25 Oct 44	Det of 4 0, 48 EM	Teams assigned to army as needed rather than attach- ed to army, corps, and di- vision by theater army.		

^a Based on: (1) First U.S. Army, "Combat Operations Data Europe, 1944-45" (Governors Island, New York, 4, N.Y.: HQ First Army, 18 Nov 46), p. 164. (2) Third U.S. Army, "After Action Report, 1 August 1944-9 May 1945" (HQ Third Army, APO 403, 15 May 45), Vol. II, G2 Section, pp. 5, 8, 20. (3) U.S. Army Ground Forces, Report No. 956 "Organization for Combat of G2 Sections; G2 Functions" (HQ ETOUSA, APO 887, 17 May 45), pp. 1, 4, 5, 7.

^b Includes two teams detached from each corps and attached to Army Photo Center.

⁶⁶ Ibid., II, G2 Section, 5.

This initial assignment of teams by theater army was changed when Third Army became operational; hence, as reflected in Line 3 of the table, Third Army detached teams from the corps and increased the strength of the Army Photo Center to around nine teams, or eighteen officers and thirty-six enlisted men. More personnel were needed in the center to complete collated maps, mosaics, gridded obliques, and detailed interpretation.⁶⁷ As reflected in Lines 1 and 4 of the table, the experience of First and Ninth Armies confirmed that of Third Army. Two teams were left with the corps, one with each division, and one with G2 Air at field army. Urgent operational interpretations and limited unit projects were left to these teams.⁶⁸

The G2 Air's of First, Third, and Ninth Armies preferred having photo center personnel and PI teams assigned rather than attached. Line 5 of Table 2 reflects their conference recommendation to 12th Army Group on 25 October 1944. The conferees agreed that assigned teams would improve the responsiveness of the center and permit field army the latitude to attach or detach teams to subordinate units as they were needed. The detachment of four officers and forty-eight men for the field army photo center was

⁶⁷ Ibid., 9.

⁶⁸ V Corps, "Intel Ops . . . ETO," 123, 124.

recommended to be the minimum required for a War Department
Table of Organization.⁶⁹

By the end of operations in Europe and the experience of advancing repeatedly beyond anticipated basic photo cover requirements, Third Army reached several conclusions: (1) field army should supply basic cover of "tactical areas" while army group provided cover of "strategic areas," (2) a reasonable definition of a field army's tactical area was 150 miles forward of the line of contact, (3) field army would then have reasonable expectation of obtaining coverage of former strategic areas when the 150-mile line was reached.⁷⁰

Use of Tactical Reconnaissance

First Army.--Tactical reconnaissance (Tac/R) covering all main roads under German control was planned prior to D-day as far south as a line Granville-Vire (about fifty miles inland from OMAHA Beach). After D-day and through 15 June, all requests for air support, both Tac/R and close support, were routed back to the G2 Air Section, 21st Army Group, Uxbridge, England. Units of the supporting IX TAC were based there pending the establishment of a lodgement area sufficient for the use of airfields on Contentin.

⁶⁹ Third Army, "After Action Report," G2 Section, 20.

⁷⁰ Ibid., II, Command Section, 16.

Radio relay was sometimes necessary and was afforded by V and VII Corps headquarters ships and air relay stations at Portsmouth. Requests from the corps were routed through First Army to 21st Army Group. However, poorly oriented pilots and communications difficulties across the Channel contributed to unsatisfactory support:

Throughout the period, efficient air support was most difficult to accomplish. Long delays in communications between the Continent and England resulted in uncertainty on the part of ground units as to whether missions had been approved or rejected. Intelligent and thorough briefing of pilots for close support missions was not possible because of the lack of front line ground situation knowledge at the airdromes in England.⁷¹ (Underlining supplied.)

These difficulties did not diminish until 15 June when fighter and reconnaissance groups began to move to the Continent at the rate of two a week.⁷²

Third Army.--Third Army concluded that forty Tac/R missions were required daily for a field army fighting in Europe; but, carefully added that this number was needed for missions generated by army and its supporting tactical air command (TAC) without the assignment of additional missions from higher headquarters. Adjustment missions for corps artillery were included in the figure of forty. It

⁷¹ First Army, "Report of Operations," I, 54.

⁷² Ibid., 69.

was further insisted that for an army of three corps, the supporting reconnaissance group should contain not less than three Tac/R squadrons and one PR squadron.⁷³

The army G2 stipulated that Tac/R should be flown "at least 150 miles forward of the line of contact and sufficiently far to either flank to locate threats to the Army."⁷⁴ The principal criterion for this figure was an enemy reinforcement time of twenty-four hours. Again, the availability of forty missions a day was stressed as a result of Third Army's experience throughout operations in Europe.

Planning the Procurement of Terrain and Weather Information

Terrain information.--The procurement of terrain information, particularly maps, demanded long-range planning and thorough supervision by the First Army G2:

Maps of scales ranging from 1/25,000 to 1/4,000,000 will be needed for the entire Cherbourg [Cotentin] Peninsula and as far south and east as Argentan. In addition, town plans at a scale of 1/10,000, or larger, of the important towns and cities will be required. The above are general requirements for the initial phase of NEPTUNE. The need for maps in areas affected by subsequent phases of this operation is anticipated. Engineer topographic facilities should be prepared to reproduce large-scale

⁷³ Third Army, "After Action Report," I, Command Section, 16.

⁷⁴ Ibid.

maps and photo-maps in areas of France and Germany for which need may arise.⁷⁵

Analysis of First Army's detailed requirements reveals that maps of Europe and Russia, scale 1:4,000,000, were requested by army to follow front line traces and order of battle information on the Italian and Russian Fronts.⁷⁶ Maps of scale 1:1,000,000 and 1:500,000 were used by both army and the corps for watching developments on the Western Front.⁷⁷ Layer-tinted maps of scale 1:250,000 and 1:50,000 were required for "tactical overprints of defense areas." First Army required 1:25,000 maps of the entire Cotentin Peninsula for distribution to subordinate units. Larger scale maps of 1:12,500 and 1:5,000 were required for thorough study of the enemy coastal defense in the vicinity of OMAHA and UTAH Beaches.⁷⁸ The source of maps was either the British Army Geographical Section General Staff or the Michelin road map series. In addition, the army topographical battalion fabricated 1:5,000 scale terrain models of the coastal area.⁷⁹

Procurement of weather information.--Climatological considerations dictated the final decision to execute OVERLORD,

⁷⁵ Ibid., III, 23, Annex 4b to Intelligence Plan.

⁷⁶ Ibid.

⁷⁷ V Corps, "Intelligence Operations-ETO," 118.

⁷⁸ First Army, "Report of Operations," III, 24.

⁷⁹ Third Army, "After Action Report," Vol. II, G2 Section, 2.

but the decision was not that of First Army commander, although the G2 had furnished him with a dismal 5 June forecast aboard the Command Ship Augusta.⁸⁰ General Eisenhower retained authority for that decision at theater level. Although the original D-day was 5 June, a 4 June prediction of heavy seas made the execution of OVERLORD unlikely on that date. Postponement of the invasion past 6 June would have caused naval bombardment forces which left port on 3 June to return for refueling; hence, with a slight break in the weather forecast late 5 June, which offered calmer seas and a cloud ceiling of 3,000 feet, General Eisenhower decided at 0400, 5 June that the invasion would occur on 6 June.⁸¹ The weather occurred as forecast with fairly rough seas, but with sufficient visibility and ceiling to permit visual bombardment of beach defenses and drops of the 82d and 101st Airborne Divisions beyond UTAH Beach.

Information of the weather, however, did not remain an item for consideration at theater level only. First Army had mobile weather units, each consisting of three officers and nineteen enlisted men provided by Ninth Air Force,

⁸⁰ General Omar N. Bradley, A Soldier's Story (New York: Henry Holt and Company, 1951), pp. 253, 254.

⁸¹ General Dwight D. Eisenhower, Report by the Supreme Commander to the Combined Chiefs of Staff on the Operations in Europe of the Allied Expeditionary Force, 6 June 1944 to 8 May 1945 (Washington, D.C.: U.S. Government Printing Office, 1946), p. 19.

assigned to army and corps headquarters.⁸²

Third Army described briefly in the OVERLORD Intelligence Plan what was expected of its weather detachments:

. . . to furnish forecasts of weather, state of sea, fordability of rivers and streams, trafficability of roads and terrain, and meteorological messages for artillery fire.⁸³

These detachments were to send observations by radio every two hours to Headquarters, Ninth Air Force. The weather station at First Army Group was to coordinate forecasts with higher headquarters and Ninth Air Force and then send them by weather communications radio to army and corps, which were responsible for further dissemination by administrative and tactical channels.⁸⁴

Use of Other Collection Agencies

Third Army's Information Service.--An "Army Information Service" was established by Third Army during the planning phase for Operation OVERLORD. Although the service was under the operational control of the army G3, its mission was to provide information of both friendly and enemy situations directly to the army staff. The key value of this arrangement, from an intelligence point of view, was the .

⁸² First Army, "Report of Operations," III, 23.

⁸³ Third Army, "After Action Report," I, G2 Plan (Annex No. 8), 63.

⁸⁴ Ibid.

immediate collection of information without the delays caused by evaluation at corps and division. The G2 included the Army Information Service as an auxiliary agency in the OVERLORD Intelligence Plan.

The 6th Cavalry Group detached one squadron which in turn formed a number of information detachments on the basis of one for each corps and division.⁸⁵ These detachments had free range of the battle area and could monitor any Third Army command net. Whatever subordinate commanders thought about this innovation, they at least were encouraged to monitor the reports relayed by the detachments to the army.⁸⁶

Nothing is mentioned about the intelligence value of this facility in the G2 portion of Third Army's After Action Report. In G3's report, its chief value seems to have been the provision of an alternate means of communication when normal command lines failed. At any rate, the "Army Information Service" was laid to rest in December 1944.⁸⁷

Coordination with other agencies.--The agencies of First Army Group, SHAEF, and ETOUSA or theater army were also available to the G2 of First Army in the planning and execution of NEPTUNE. The G2 of each staff was the focal point of coordination for requests and receipt of combat intelligence

⁸⁵
Ibid.

⁸⁶
Ibid., II, G3 Section, 25.

⁸⁷
Ibid.

of importance to First Army.⁸⁸

Other service agencies were also mentioned in the plan, to include the A2's of Ninth Air Force and the Air Support Command of Ninth Air Force. The Office of Naval Intelligence, U.S. Navy, sent special interrogators and document examiners to First Army to aid specifically in the "intelligence exploitation of the capture of Cherbourg."⁸⁹

The G2 of ETOUSA coordinated intelligence liaison between First Army and U.S. military attaches in neutral countries and U.S. missions to Allied Governments. The G2 of the 21st Army Group provided the focal point for liaison with other "Allied intelligence-producing agencies."⁹⁰

First Army maintained liaison officers, for matters pertaining to operations and logistics as well as intelligence, with Headquarters, 21st Army Group, Second British Army, Third U.S. Army, and the corps attached to First Army for Operation NEPTUNE: V, VII, VIII, and XIX Corps.

These provisions were carefully spelled out in First Army's intelligence annex to the NEPTUNE plan.⁹¹

Summary

Collection agencies.--Field army, corps, and division G2's had numerous collection agencies available in the

⁸⁸ First Army, "Report of Operations," III, 13.

⁸⁹ Ibid. ⁹⁰ Ibid., III, 14. ⁹¹ Ibid.

European Theater of Operations. Many of these agencies, such as subordinate units capable of reconnaissance and observation, IPW, OSS, document, and photo interpreter teams, were responsible to provide information under the staff supervision of the G2.

During the planning phase for Operation OVERLORD, tactical units were almost completely dependent on theater, theater army, and Allied sources for intelligence. The Third Army G2 established a research library to aid the staff in assimilating enemy and terrain data preparatory to the army's landing on the Continent.

Techniques for directing the collection effort.--

The G2 plan or collection worksheet was infrequently used in the European Theater of Operations; it was used occasionally for the orientation of intelligence personnel regarding collection requirements.

Essential elements of information (EEI) contained far-reaching questions on enemy reinforcement capabilities and logistical considerations which were not answered until several weeks after the landings on OMAHA and UTAH Beaches. Army group rarely issued EEI. EEI normally originated at field army level and were quite numerous. To answer army EEI, corps were directed to reconnoiter in zone; they were not given specific reconnaissance and observation missions.

Corps G2's often assigned specific reconnaissance and observation missions to divisions to gather answers to EEI.

First Army normally relied on standing operating procedures to produce information of the enemy. Spot reports, periodic (daily) reports, and prisoner of war interrogation reports were the type reports required of subordinate units by First Army during operations on the Continent. In these reports, both the information and its source were to be evaluated as credible or doubtful if considered by subordinate unit G2's as less trustworthy than reliable.

Achieving effective aerial reconnaissance.--Field army tactical or photographic reconnaissance requests processed through the air force headquarters supporting army group proved ineffective and time-consuming. Each field army required direct liaison with its own supporting tactical air command for responsive service. Before the invasion, reconnaissance aircraft supported the Allied deception objective of causing the enemy to retain a maximum number of divisions in the Calais area rather than shifting them to Normandy. Reconnaissance missions also assisted in accurately locating German divisions north of the Seine River and detecting any diversion of these enemy units to the Cotentin Peninsula.

Army and corps G2's prearranged reconnaissance

requests with the supporting tactical air command for the first seven days of Operation OVERLORD. This was necessitated by the difficulties in communication anticipated with tactical air command headquarters and supporting airfields still located in England. Known and suspected locations of enemy mobile divisions on the Continent received priority attention in prearranged requests. Four flights daily over selected areas and routes were considered necessary for proper surveillance of enemy mobile units. Reconnaissance reports, in flight if necessary, were sent to corps and divisions simultaneously when rendered to army headquarters.

Ground liaison officers, of infantry, armor, or artillery branches, were found essential to effective aerial reconnaissance support. Stationed at supporting airfields, they trained, oriented, and debriefed pilots on combat intelligence requirements and ensured the dissemination of information to army, corps, and division G2's. Multiple means of communication between tactical headquarters and supporting airfields were arranged to prevent interruption in the transmission of information.

Planning aerial photographic coverage.--Extensive large-scale aerial photographic coverage of the Cotentin Peninsula was planned and executed before Operation OVERLORD. Coverage of scale 1:15,000 to 1:20,000 to a distance of ten

miles inland was considered sufficient to support the first seven days of the operation. This estimate proved somewhat shallow in the case of one corps.

Initially, Third Army planned basic photographic reconnaissance coverage to a depth of 12 miles forward of the battle area with extended coverage along planned routes of attack. This estimate was revised at the end of the war to include basic cover of the so-called tactical area to a depth of 150 miles. It was recommended that army group plan photographic cover beyond 150 miles in strategic areas. One photo reconnaissance squadron in the supporting tactical air command was considered sufficient for the requirements of a three-corps army.

Theater army provided photo interpreter teams to field armies, corps, and divisions in the European Theater of Operations. The bulk of these teams were concentrated in the army photographic interpretation center where they were needed for the production of mosaics, collated maps, gridded obliques, and detailed interpretation. Corps and divisions normally retained one to two teams for operational or short-range requirements. Without exception, field army G2's considered the assignment of photo interpreter teams to army superior to attachment of the teams to army, corps, and division.

Use of tactical reconnaissance.--Fewer tactical than photographic reconnaissance missions were flown prior to D-day of Operation OVERLORD. Preplanned tactical reconnaissance flights covering likely routes of reinforcement ranged fifty miles inland from D-day to D+10. Immediate requests for tactical reconnaissance flights had to be routed through army group headquarters and supporting airfields in England until sufficient airfields were uncovered in Normandy.

During operations on the Continent, Third Army concluded that three tactical reconnaissance squadrons, with the capability of flying at least forty missions a day, were desirable for the support of a three-corps field army in combat. Based on the rapid advance of the army in France and later operations, it was further concluded that tactical reconnaissance should be flown at least 150 miles forward of the line of contact and sufficiently far to either flank to provide warning of the approach of divisions with a reinforcement time of twenty-four hours or less.

Planning the procurement of terrain and weather information.--Extensive map requirements were planned under the supervision of the First Army G2 for Operation OVERLORD. Maps required ranged in scale from 1:25,000 to 1:4,000,000. Large-scale maps, including 1:12,500 and 1:5,000 defense overprints of German coastal defenses, were obtained for

issue to subordinate units. The army topographic battalion procured and issued these maps; the unit further reproduced topographic and photo maps and fabricated 1:5,000 terrain models of the coastal area.

Weather strongly influenced the theater commander's decision as to the final selection of D-day, H-hour for Operation OVERLORD. Although the First Army commander did not participate in this decision, he was kept advised of weather developments before and during cross-channel movement to Normandy.

Mobile weather detachments, provided by Ninth Air Force, were attached to army and corps headquarters. These detachments furnished staffs with daily forecasts and special climatological studies for operations on the Continent. A primary function of mobile weather detachments was to perform and send local meteorological observations by radio every two hours to Headquarters, Ninth Air Force.

Use of other collection agencies.--Third Army tried out a special internal collection network, known as the Army Information Service, which proved unprofitable to the army G2.

Special purpose collection agencies from other services sometimes accompanied unit intelligence sections. Such was the case with the special Naval intelligence teams which

accompanied First Army and VII Corps in anticipation of the capture of Cherbourg. Liaison officers proved necessary for the exchange of information and intelligence between U.S. and Allied headquarters at army level.

Conclusion.--Essential elements of information, originated at field army, provided initial impetus to the collection effort. The army G2 also relied on standing operating procedures for information collection. Numerous agencies, several as teams attached to army headquarters, were available to assist the G2. Assignment of specific collection missions began at corps level. A collection plan was rarely used at either corps or army. Planning aerial reconnaissance proved a major task before OVERLORD and during initial operations in Normandy. Terrain and weather information were provided chiefly by the topographic battalion and the mobile weather detachment. Aerial photographs supplemented the terrain information available to the G2.

CHAPTER III

RESULTS OF THE COLLECTION EFFORT

Attached Teams

Prisoner of war interrogation.--In a series of interviews conducted right after the war, prisoner of war interrogation (IPW) was ranked with tactical and photo reconnaissance as the most lucrative sources of information by army combat intelligence section representatives.¹ The corps interviewed stated that IPW was their most profitable source of information.² One division stated that IPW furnished ninety percent of its information, particularly at regimental and battalion level. Prisoners seemed to be most helpful and accurate in providing order of battle information.³ The following accounts illustrate the types of information that prisoners provided.

First Army wasted no time in exploiting the prisoners captured early after the Normandy landings. The IPW

¹ 12th U.S. Army Group, "A Study of Operations of G2 Intelligence Branch in the 12th Army Group, 1 August 1944 to 9 May 1945" (Headquarters 12th Army Group, G2 Intelligence Branch, APO 655, 1 July 1945), p. 36.

² Ibid., 37.

³ Ibid., 39.

teams operating at army cages found that "an overwhelming number of prisoners talked willingly." German officers at first were security conscious and unwilling to talk at all, but they became more useful as the success of the invasion became apparent. Mounting captures and a submissive attitude of prisoners during questioning furnished clear indications of sagging German morale. Many prisoners were quite willing to discuss what they knew of German plans or weapons, such as the V-1.⁴

During the pursuit to the Seine River in the period 19-26 August 1944, First Army interrogators were able to verify from German staff officers the near-disintegration of the German Seventh Army. The divisions that had been badly beaten and "existed in name only" were: the 3d Parachute Division, the 276th, 277th, 353d, 363d, and 84th Infantry Divisions. The panzer divisions which had managed to escape the Falaise-Argentan Pocket "were but skeletons, devoid of all but a small percentage of their personnel and equipment."⁵

Prisoners were also valuable in identifying the

⁴ First U.S. Army, "Report of Operations, 20 October 1943 - 1 August 1944" (HQ First Army, n.d., 1945), Book V, p. 124.

⁵ First Army, "Report of Operations, 1 August 1944 - 22 February 1945," p. 20.

composition of opposing divisions and the resistance likely to be encountered. On 1 October, the defenses of Aachen were reinforced by the hastily formed 246th Infantry Division. IPW revealed that it contained "40 percent naval personnel and numerous air force elements with only ten days infantry training." It became obvious at this time that the Nazis were marshaling every physically fit male for the defense of the Fatherland. Prisoners also revealed that Hitler's frequent exhortation to "'defend to the last man and the last round' was not falling on barren ground"--an early indication that the battle for Germany would not be easy.⁶

The battle for Aachen continued until 21 October, and during this time prisoners were helpful in identifying subordinate units of new divisions in the sector. On 9 and 10 October, enemy reinforcements arrived and resistance stiffened. Prisoners captured in the vicinity of Bardenberg on 11 October revealed that reconnaissance elements of the 116th Panzer Division and the 1st SS Panzer Grenadier Regiment of the 1st SS Panzer Division had entered the battle. Prisoners of these units said that they had left Arnhem, opposite the British Second Army, only two days before. Other identifications revealed by prisoners included the 506th

⁶ Ibid., 57.

Heavy Tank Battalion and the 304th Panzer Grenadier Regiment of the 2d Panzer Division. The entry of these regular German units into the Aachen battle marked the beginning of "its most bitter phase."⁷

Although one German division, the 3d Panzer Grenadier, tried to prevent the encirclement of the city, it was unsuccessful and with the surrender of the city on 20 October, the only prisoners remaining were those of the Wehrmacht, or Regular Army troops.⁸ The Schutzstaffeln (SS) units, or the Elite Guard of the Party,⁹ had been carefully withdrawn.¹⁰ The German High Command continued to carefully preserve what it considered the best and most loyal of its mobile fighting units. Since Hitler's security troops defended the Third Reich against domestic enemies as well as foreign, it is likely that they were considered necessary insurance against internal political revolts. Interrogation revealed that these measures lowered morale and probably hastened the surrender of the Wehrmacht in the struggle for Aachen.

⁷ Ibid., 58 and 59.

⁸ Wehrmacht--Army troops as distinguished from SS, the security force of the Nazi Party.

⁹ U.S. War Department, Technical Manual E 30-451 Handbook on German Military Forces (Washington 25, D.C.: War Department, 1 September 1943), p. 222.

¹⁰ First Army, "Report of Operations," 60.

Before Third Army entered the Continent, General Patton issued instructions to the command which reflected his experience in observing the interrogation of prisoners in North Africa and Sicily:

German prisoners over forty talk more easily than the younger ones. They must be examined separately and not returned to the cage where the young ones are. Prisoners other than German usually talk freely and inaccurately. They, too, should be examined out of the hearing of, and later separated from the young Nazis.¹¹

The screening of Third Army prisoners was quite thorough before questioning began. This process involved dividing the prisoners into ranks and units with priority of questioning going to those units whose prisoners were most apt to furnish answers to the army EEI. The subsequent process of interrogation began in private and consisted of a "detailed cross-examination of the prisoners selected along lines laid down by the tactical situation and the EEI. Interrogators specialized in units and built up data to show strength, location, and planned action of particular enemy units."¹²

Third Army accrued dividends from its IPW efforts soon after commitment on 1 August 1944. Colonel Robert S.

¹¹ Third U.S. Army, "After Action Report, 1 August 1944 - 9 May 1945" (HQ Third Army, APO 403, 15 May 1945), II, Command Section, p. III.

¹² Ibid., G2 Section, 13.

Allen records how captured prisoners tipped the German hand in revealing plans for the attack aimed at Mortain, the last desperate effort to seal the Cotentin Peninsula.¹³

The probability of adoption of this attack was listed as second in the Third Army Periodic Report of 3 August.¹⁴ The report of 6 August reiterated the threat.¹⁵ The attack occurred on 7 August, but not before Third Army had time to reposition the 35th Infantry Division to assist in containing the German effort and order the XV Corps to attack north to Argentan to attempt the encirclement of the attacking enemy divisions.¹⁶

As in First Army, Third Army IPW revealed significant order of battle (OB) information. In August, prisoners revealed the commitment of the 49th and 51st SS Panzer Grenadier Brigades, which had been hurriedly brought from Denmark and "prematurely committed." Running accounts were kept on the regrouping attempts of the 2d, 9th, and 116th Panzer Divisions, the 130th Panzer Lehr Division, and the

¹³ Robert S. Allen, Lucky Forward (New York: The Vanguard Press, Inc., 1947), p. 101. Colonel Allen was chief of the Intelligence Situation Subsection, Headquarters, Third U.S. Army for the entire period of Third Army's operations in ETO.

¹⁴ Third Army "After Action Report," G2 Annexes, XLIX.

¹⁵ Ibid., L.

¹⁶ Ibid., G2 Section, 10.

5th Parachute Division. The strength and commitment of the 48th Infantry Division was traced during the month. Even the location of the German Supreme Command West was pegged in three successive moves to the east from Germain to Verzy to Arlon.¹⁷

In addition to providing valuable OB information, prisoners frequently furnished the locations of command posts and communication centers. During October, the German First Army Command Post was pin-pointed at St. Avold. This information led, in turn, "to associating the German First Army with the 17th SS and several infantry divisions and the German LXXXII Corps." A German prisoner likewise revealed the location of the communication center for cable lines to Koblenz, Saarbrucken, and Cologne.¹⁸

A prisoner of war, in a rather strange fashion, was responsible for disclosing detailed information of the Siegfried Line to Third Army. A German division commander, a major general, who had surrendered in France in late summer reached the conclusion while in captivity that the war was lost and that he would be serving the German people to hasten its end. He had supervised the construction of a portion of the line in Third Army's zone.

¹⁷ Ibid., G2 Section, 13.

¹⁸ Ibid., G2 Section, 21.

After he had divulged his feelings, he was brought to Nancy and installed in a villa with German-speaking guards and G2 officers. Given maps he "pin-pointed hundreds of emplacements along with details of their construction, armament, strongpoints, and weak spots." His work was collated with other available information and found to be accurate.

Later, at a special briefing of corps and division commanders and their G2's, he appeared in his own uniform and presented the results of his work. "Afterwards a U.S. general lauded the presentation as one of the ablest he had ever heard."¹⁹ Nazi terrorism had had its effect in reverse by causing this German commander to collaborate in a totally unexpected manner. The reaction of prisoners toward the oppression of a regime to which their loyalty was forced can sometimes benefit the captors in surprising ways. Interrogators were alert to this possibility.

Interrogation of prisoners of war proved a flexible means of collecting information which was not restricted to combat intelligence. Other types of intelligence began to develop in the three Third Army PW cages during February 1945 that expanded the lines of questioning into strategic and technical fields of interest to other staff sections.

¹⁹ Allen, 198-199.

At this time fifteen staff sections and/or organizations with Third U. S. Army alone submitted their essential elements of information to this interrogation agency. Each field of interrogation thus opened up was made more fertile through close liaison; for it meant training for the interrogator in a field new to him.²⁰

The emphasis on gaining information of immediate tactical importance was continued: (1) the composition and identification of units such as the German XIII Corps with the 167th, 276th, and 340th Volksgrenadier Divisions were determined; (2) the retention or reassignment of key personnel and units, such as the information which revealed that Field Marshal Model was to be retained as Supreme Commander in the West in expectation of an Allied offensive; and (3) the holding of Fifth Panzer Army in the west to counter any Allied offensive.

Detailed intelligence on signal security violations most frequently committed by Americans was developed. Detailed questioning that supported a study of the German soldier's diet and the contribution of shortages in that diet to his defeat in the Ardennes was conducted.

Counterintelligence questioning became important. Interrogators determined from prisoners a picture of the

²⁰ Third Army "After Action Report," G2 Section, 36.

extent of resistance movements in Germany. For civil affairs, IPW teams began to furnish personality and background sketches on city officials in various Wehrkreise²¹ in Third Army's zone of attack.

Air interrogation efforts became highly productive. Prisoners were able to reveal the locations of underground Junkers aircraft factories, to include the extent of their overhead protection, details of construction, and amount of production. Destruction achieved by aerial bombardment that had escaped aerial reconnaissance was spelled out by prisoners who gave estimates or known figures in casualties, impairment of morale, and the effectiveness of particular bombs and air tactics.

Special efforts in case of windfall captures produced profitable information. An entire regimental command post, yielding the regimental commander, two battalion commanders, and several company commanders, was captured in February. The interrogation of these officers lasted for two days. What one officer revealed led to an entirely new line of questioning. An accurate tabulation of the strength, disposition, and future plans of the division was compiled. A prisoner was located who had intimate knowledge of the activities of the SS Jagdkommandos, a sabotage unit that had

²¹Districts of army corps in Germany.

operated with success in the Balkans. Details of plans to commit this unit to the Western Front were uncovered and relayed to the Security Subsection of Third Army G2 Section.²² In March, Third Army and 70th Division counterintelligence personnel, alerted to the threat of the Jagdkommandos and other sabotage and stay-behind units by IPW efforts, located ten caverns filled with explosives, fuses, and other standard sabotage devices just east of the French-German border. The prisoners whose information helped locate the caches were taken to the counterintelligence interrogation center for further questioning but without results.

Military intelligence interpreter teams.--These teams, the same size as IPW teams, had the mission of questioning civilians and refugees for military information. In England Third Army's teams initially briefed the troops on the customs, culture, and geography of France. The teams were supplemented on occasion by French and German-speaking officers and men who could be spared from tactical assignments.²³ They provided both tactical information and counterintelligence reports on collaborators and enemy agents.²⁴

²² 37. Third Army "After Action Report," G2 Section, 36,

²³ Ibid., G2 Section, 6. ²⁴ Ibid., G2 Section, 13.

MII teams set up an office in a town near the headquarters, and with the help of civil affairs teams, contacted the local French city officials. They also strived for contacts with the local French Forces of the Interior (FFI) for information on German units, strength, withdrawal routes, and peculiarities or weaknesses. G2 kept the MII team chief informed of the current EEI by daily liaison visits of the chief to the Third Army CP. The rapid move of Third Army through France found most of the original attached teams removed to the communications zone and replaced by hastily formed German-speaking teams. The balance of their service in France was more profitable for the production of strategic intelligence rather than tactical.²⁵

In January, the MII teams with Third Army began to bring in profitable information regarding air targets and the fortifications on the Siegfried Line.²⁶ Until the end of the war, the chief value of these teams seemed to lie in giving G2 targets for further reconnaissance or airstrike. The chief drawback to the information produced by these teams lay in the untrained observations of French and German peasants and their unfamiliarity with military terminology. Questioning civilians was also a slow way of gaining information that often had strategic value rather than

25

Ibid., G2 Section, 18.

26

Ibid., 33.

tactical.²⁷

Ninth Army records instances of obtaining some information from civilians in the stable situation opposite the Siegfried Line in the first two weeks of October. On 7 October, civilians revealed that the Germans had ordered the evacuation of Echternach, on the Luxembourg-German border, with Hapscheid being in the process of evacuation. On 10 October, a civilian reported that Germans were working on houses in the town of Roth and "might possibly be constructing pillboxes."²⁸ In the latter part of October, when Ninth Army moved to the north flank of 12th Army Group, G2 noted an occasional conflict between IPW and civilian reports. At a time when the German began to hoard armor reserves, prisoners verified some twenty tanks just east of Wurselen, but civilians claimed that these had been withdrawn.²⁹ Civilians were capable of only rudimentary observations, and these demanded verification.

Office of Strategic Services (OSS) teams.--The teams discussed in this section are the secret intelligence (SI) teams as opposed to the special counterintelligence (SCI)

²⁷ Ibid., 54.

²⁸ Ninth U.S. Army, "G2 After Action Report, 1-31 Oct 44" (HQ Ninth Army, APO 339, 10 Nov 44), Incl 1 "Rept of En Action for Oct 44, fr G2 Sit Sec," p. 3.

²⁹ Ibid., 8.

teams, also attached to field army headquarters during World War II. The secret intelligence detachment attached to First Army Headquarters for OVERLORD was ten officers, eight enlisted men, and fourteen civilians.³⁰ The SCI team was considerably smaller and gathered combat intelligence incidental to its primary mission of countering the efforts of enemy agents and saboteurs.

Early assistance rendered to First Army by OSS was the dispatch of instructions to resistance groups such as the French Forces of the Interior (FFI) to sever military communication wires and thus force the Germans to resort to radio. This action, in turn, aided signal intercept teams in securing "valuable signal enemy intelligence." OSS further sponsored the parachuting of agents behind German lines to secure information and to recruit other agents among the French. For example, local residents filtered through the Germans at Valognes, Montebourg, and Cherbourg and obtained information regarding German fortifications and estimated strengths. In other cases, they acted as guides to First Army unit patrols and led advancing columns through the Cotentin Peninsula.³¹

³⁰ First Army "Report of Operations, 20 Oct 43 - 1 Aug 44," III, 23.

³¹ Ibid., I.

In Third Army, OSS agents sometimes proved the most reliable source for pin-pointing targets which other agencies could only locate generally. When the Third Army CP was in Nancy in October, large caliber guns dropped sixteen shells on the city near the Third Army CP. Aerial and photo reconnaissance searched for possible locations, but the Germans cleverly concealed the guns. IPW revealed at this time that guns of 280 mm caliber did exist in German rear areas, but exact locations were not learned. MII found French civilians who spoke of the existence of 260 mm guns. Tactical airstrikes were directed against rail lines and tunnel entrances in hopes that the guns, if railway type, would be bottled up or held immobile. The guns continued to fire on Nancy. The information accumulated was turned over to the OSS detachment with the following results:

Finally, the Office of Strategic Services/Secret Intelligence Field Detachment working with the "Special Reseaux," a secret French underground source which had radio contact with agents behind the German lines, learned that a train with twenty-two cars was located between TETERCHEN (Q 17) and LANDONVILLE (Q 06), and that on the 21st and 22d of October large guns had fired from MOULIN DE FRANCALTROFF about 300 meters North of LANDONVILLE (Q 06) station.³²

Airstrikes on 26 October ensured that these guns fired no more.³³

³² Third Army "After Action Report," G2 Section, 19.

³³ Ibid.

As intelligence in Germany took on more urgency, OSS agents began to direct their efforts to parachuting behind German lines. In January 1945, a school for agents was developed under OSS direction. These agents had the missions of sending back information and sabotaging German vehicles. During the month, nineteen missions were sent into enemy territory with only three being unsuccessful, primarily because of enemy patrols and artillery encountered. One mission, having sent fifty-four messages, returned through Third Army lines after spending seven weeks behind enemy lines. Overall, Third Army received 349 intelligence messages from OSS during the month of January.³⁴

The types of information most frequently contributed by the OSS detachment to the Third Army effort were enemy movements, defenses, and targets for artillery or airstrike. Often, an OSS mission was "the sole source of information upon which tactical decisions could be based."³⁵ The G2 concluded that, to facilitate the clandestine reception and dispatch of agents, the OSS detachment supporting a field army should not be an integral part of the headquarters. Similarly, "holding areas for training, briefing, equipping and dispatching agents should be located near Detachment

³⁴ Third Army "After Action Report," G2 Section, 33.

³⁵

Ibid., 55.

Headquarters but should not be integral therewith."³⁶

Ninth Army also provides a graphic description of OSS operations. During the reduction of the port fortresses that the Germans were stubbornly defending in Brittany in September 1944, OSS agents who had established contact with the FFI were able to corroborate or send back fresh reports of German reinforcement attempts. Naval shipping activity around the port of La Rochelle located by Tac/R in late September was confirmed with the specific report that fifteen tanks had arrived to reinforce the besieged garrison. Similarly, OSS was able to report the reinforcement of La Rochelle by infiltration of Germans in civilian clothes on 2 October.³⁷ OSS locations of routes of reinforcement--from Royan and Rocheefore to La Rochelle--enabled units of VIII Corps to block the routes and hasten the reduction of the peninsula.³⁸

OSS had an internal network of contacts and sources of intelligence not readily available to an army headquarters by other means, as described in the report of

³⁶ Ibid., 55.

³⁷ Ninth U.S. Army, "Report of Enemy Action for October, 44, from G2 Situation Section" (HQ Ninth Army, APO 339, 10 Nov 44), p. 1.

³⁸ Ninth U.S. Army, "Report of Enemy Action for October, 44, from G2 Situation Section" (HQ Ninth Army, APO 339, 10 Nov 44), p. 1.

Lieutenant Colonel Arthur E. Sutherland, chief of the detachment attached to Ninth Army during operations in October 1944:

During the second half of the month the mission assigned was to report all available intelligence on the enemy strength, dispositions, movements and defenses on the new Army front and as far north as Venlo. Its resources for this task, in addition to radio reports from Paris [OSS established a central agency in Paris after it was secured by the Allies.], were the Dutch intelligence organization, with headquarters in Eindhoven, and a branch office in Maastricht, the Belgian Intelligence with headquarters in Brussels and a branch in Verviers. To collect the information obtained from these sources, a system of couriers by jeep was created, making runs on alternate days to Brussels and to Eindhoven. An additional source of intelligence was the Belgian Brigade, operating under the American 7th Armored Division, which forms a part of British Second Army to our north. By arrangement with 21st Army Group, Second Army, and 7th Armored Division, an OSS officer and an MII officer, with a portable radio, were installed at Kinrooi near the headquarters of the Belgian Brigade, with instructions to relay to Ninth Army at once all intelligence obtained from the G2 of that Brigade.³⁹

Lt. Col. Sutherland further reported that seven radio messages from OSS Paris concerning enemy movements and identifications were submitted to G2, Ninth Army during this period. "A larger volume of material was obtained from Dutch and Belgian local sources and from the group at the Belgian Brigade."⁴⁰

³⁹

Ninth U.S. Army, "After Action Rept for Oct 44 from G2, OSS Section" (HQ Ninth Army, APO 339, 10 Nov 44), p. 2.

⁴⁰

Ibid.

With stubborn German resistance and few days of good flying weather facing the Ninth Army G2 during November, he turned increasingly to OSS for agent reports, which were not always successful:

Information received by the 10th made it evident that a possible threat to our north flank might well originate from the wooded areas south and east of Venlo. It was decided to send an OSS agent through the lines to investigate these reported enemy concentrations. The first attempt on the 11th was unsuccessful when the agent was arrested by our own troops. Another attempt is in progress at present.⁴¹

Wary American troops were not the only difficulties that faced agents who attempted infiltration of German lines. The Germans had evacuated all civilians, except a few critical war workers, from the forward areas. It was hard for an agent to hide or to identify himself with the population. As an answer to the problem of infiltration during this period, the dispatch of agents into enemy territory through unworked coal mine shafts that connected American and German dispositions was considered.⁴²

The G2 and the OSS detachment commander agreed to abide by conventional methods of infiltration, however, and during the week of 19-25 November, an agent succeeded in infiltrating German lines and remaining about fourteen hours.

⁴¹ Ninth U.S. Army, "G2 After Action Report, 1-11 Nov 44" (HQ Ninth Army, APO 339, 6 Dec 44), p. 2.

⁴² Ibid., "... Report, 12-18 Nov," p. 2.

Instructed to go to Julich, the agent said that he was unable to penetrate more than a few miles because of the "large number of Germans, the rain and mud, and the American artillery fire." He did bring back information of enemy infantry, tanks, and minefield locations which was promptly forwarded to corps G2's.⁴³

The task of gathering information in a hostile country defended by a desperate enemy was extremely difficult and hazardous for OSS agents; nevertheless, their use did prove valuable on occasions when other means fell short of the mark. General Bradley claims in A Soldier's Story that agents employed during the winter of 1944-45 "disappeared into the winter and were never heard from again."⁴⁴ In the case of Third and Ninth Armies, General Bradley's conclusion is somewhat less than accurate.

Signal radio intelligence units.--Third Army was assigned four companies with one each allotted the attached corps during operations. Collectively, the units comprised the Army Signal Intercept Service (SIS). The mission of these companies was to maintain a security check on friendly communications and intercept enemy messages. Colonel

⁴³ Ibid., "...Report, 19-25 Nov 44," p. 1.

⁴⁴ General Omar N. Bradley, A Soldier's Story (New York: Henry Holt and Company, Inc., 1951), p. 461.

Allen, chief of the situation subsection in Third Army headquarters, evaluated the service as of great benefit to Third Army throughout operations in ETO.

During Third Army's attack to relieve the 101st Airborne Division at Bastogne, a company broke a coded German message regarding the 5th Parachute Division. Subsequently, heavy losses were inflicted on this division because of the information received. Colonel Allen concluded that these units were especially lucrative sources of information when the situation was fluid and the German was forced to use radio.⁴⁵

When First Army completed the clearing of the Cotentin Peninsula and threatened to break out of Normandy, the Germans reacted with the commitment of the 2d SS Panzer Division and the 130th Panzer Lehr Division. The latter unit, leaving its position from the zone of the British Second Army, crossed the front into the zone of First Army with little or no regard for radio silence. First Army Signal Intercept Service received the indiscriminate transmissions and relayed them to G2, who in turn passed them down to the corps.⁴⁶ Having lost surprise and suffered "considerable

⁴⁵ Robert S. Allen, Lucky Forward (New York: The Vanguard Press, Inc., 1947), p. 56.

⁴⁶ 12th U.S. Army Group, "G2 Section Report of Operations (Final After Action Report), (HQ 12th Army Group, July 1945), Vol. III, p. 10.

losses on the British front," the division resisted the attacks of the V and XIX Corps but was unable to check their advance and the eventual seizure of Caumont.⁴⁷

Enemy documents.--The document team at First Army comprised one officer and four noncommissioned officers. All were trained in German, enemy order of battle, and in the exploitation of documents. The team did not join First Army in England; it was not scheduled to join the headquarters until 20 July, but due to the volume of documents captured--from 250 to 1,000 pounds daily--the team was requested early and joined on 20 June.

Documents usually reached First Army within forty-eight hours after capture. Those of immediate value were disseminated after an extract was made for the G2 periodic report. Papers of possible value to higher headquarters were forwarded to army group and to the SHAEF Document Section. Valueless documents were destroyed at army. If the corps gained a number of documents, the team occasionally went forward to help process them. This occurred specifically at Cherbourg, St. Lo, and Coutances.⁴⁸

In August 1944, Third Army collected the following documents of immediate intelligence value:

⁴⁷ First Army "Report of Operations, 20 Oct 43-1 Aug 44," I, 86-92.

⁴⁸ First Army "Report of Operations," V, 125.

1. Graphic representation of German Seventh Army organization.

2. Secret papers of General Spang, captured in the vicinity of St. Malo.

3. Complete G2 file of the Second German Armored Corps (Liebstandarte Adolph Hitler).

4. Detailed march order of replacements (of regimental size) for 49th German Division, showing where the unit was to be located on the day after the document was captured.

5. Signal documents which enabled Army Signal Intercept Service to decipher incoming enemy encoded messages.⁴⁹

The section was able to furnish information on German tactics and doctrine by moving out of the command post and exploiting "documents targets" such as the German Tank School at Mailly, France.⁵⁰ Often, in screening documents targets the intelligence derived was strategic rather than tactical, as in the projected Messerschmitt factory at Algrange, France, and the Herman Goering Iron Works at Hagondange.⁵¹

In October 1944, as Third Army approached the Siegfried Line and the situation stabilized on the German border, documents on the Maginot and Siegfried Lines began to reach the headquarters. These showed minefields, artillery concentration plans, and the location of tank obstacles.

⁴⁹ Third Army "After Action Report," G2 Section, 13.

⁵⁰ Ibid., 18.

⁵¹ Ibid., 21.

Documents were located which contained geodetic survey data on the Rhine Province. Documents on Nazi doctrine, of value to the psychological warfare section, were passed on. A list containing the code names of the First German Army and engineering data on the Metz fortresses were found.⁵² Four of these fortresses still held out against Third Army at the end of November despite the encirclement and clearing of the city proper;⁵³ thus the data was received in time to be of possible tactical value.

Third Army reached several conclusions regarding documents as a source of intelligence: (1) during fluid situations, documents reached army level too late for "full operational exploitation," (2) sufficient personnel, trained in the exploitation of documents, were not attached to army headquarters to permit further attachment to corps and divisions, and (3) troops failed to realize that every scrap of paper found in enemy territory was of potential intelligence value and should be turned in for examination.⁵⁴

Aerial Reconnaissance

Introduction.--Aerial reconnaissance, including both tactical or visual reconnaissance (Tac/R) and aerial photography or photo reconnaissance (PR), was ranked next

⁵² Ibid., 25.

⁵³ Ibid., 22.

⁵⁴ Ibid., 55.

to interrogation of prisoners of war as being of consistent value to army G2's during operations in Europe.⁵⁵ However, deficiencies existed in both forms of reconnaissance which prevented their full exploitation. Armies seemed to be rarely satisfied with the speed with which photographs were delivered; visual reconnaissance or Tac/R reports from army group usually duplicated the cover flown by the tactical air commands supporting the armies.⁵⁶ Corps likewise complained of slow deliveries of photographs and the lack of detail and clarity on lithographs as compared to glossy photographs. Supporting air commands sometimes irked forward units because of their refusal to fly missions based on bad flying weather localized at the airfield while the weather and visibility near the front seemed acceptable for PR missions.

Corps complained too of the slowness of Tac/R reports with instances cited of eight to forty-eight hours' delay in delivery of the requested coverage. Liaison and coordination often proved difficult between supporting airfields and army and corps headquarters.⁵⁷ G2 Air at every headquarters faced problems of communications that were tackled in various ways. Certain corps were able to have

⁵⁵ 12th Army Group "G2 Section Report of Operations," III, 136.

⁵⁶ Ibid., 142.

⁵⁷ Ibid., 143.

pilots report directly by wire or radio with their observations. Others met the problem of keeping the supporting reconnaissance squadrons informed of the ground situation by sending all situation reports and operational orders to the airfields. To overcome a mutual lack of understanding, pilots were sometimes brought to the front lines to see the problems of the infantry, and ground observers were sent back to the airfields to see for themselves the problems of the pilots. For both Tac/R and PR to achieve the desired results, ground liaison officers were an established necessity at supporting airfields.⁵⁸ The results of Tac/R and PR will be treated separately in the following paragraphs.

Tactical reconnaissance.--After the establishment of a G2 Air subsection at First Army in mid-June and the gradual introduction of airfields on the Continent, Tac/R was used increasingly by First Army. During the advance of First Army south of St. Lo during Operation COBRA, Tac/R first reported the movement of armored columns, believed to be the 2d Panzer Division, advancing toward Le Beny-Bocage to reinforce the German line on the First Army front.⁵⁹ This was confirmed on 28 July with the capture

⁵⁸ Ibid., 143.

⁵⁹ First Army "Report of Operations, 20 Oct 43 - 1 Aug 44," I, 102.

of the first prisoners of war from the 2d Panzer Division.⁶⁰

Operation COBRA provides a particularly fine example of cooperation between Tac/R and ground units and also shows that the customary delay experienced in getting reports to attacking troops was recognized by air and ground commanders alike. Instead of adhering to routine channels of requests and responses to visual reconnaissance, armed reconnaissance for attacking armored columns exploiting the VII Corps breakthrough was arranged:

In this set-up four fighter-bombers armed with fragmentation and 500-lb. bombs fly continuously ahead of each advancing armored column. Liaison is maintained by additional air support personnel riding in the forward tanks of the column. Communication between air and ground, including tank battalion commanders, air personnel riding in tanks and between division and corps air support party officers, is maintained by means of VHF radio. With this arrangement, very close coordination is obtained by the tank-air team. Using the planes as their eyes to give advance warning of impending threats and detailed information on the enemy's dispositions, the armored columns are able to advance more boldly and aggressively.⁶¹ (underlining supplied.)

In the arrangement described above, if enemy resistance was encountered that proved too formidable for the accompanying armed aircraft, additional fighter-bombers were promptly requested by the flight leader. Then the fighter support initiated action against the enemy targets. First Army described this employment of the tank-air team as "an

⁶⁰ Ibid., 104.

⁶¹ Ibid., 121.

outstanding achievement in air-ground cooperation."⁶²

Strickly from an intelligence point of view, this combination proved to be an ingenious provision for the performance of the complete intelligence cycle in the minds and orders of the air and ground commanders who had at their immediate disposal the means to direct prompt action against the resistance, request further information, or ask for additional assistance. Passing this information through additional eyes, minds, journals, and directives would have made the intelligence useless when received by the ground commander who needed it most.

During the period 27 June-24 July 1944, First Army likewise found that L5 liaison or "cub" plane air observation posts for the direction of artillery fire were of "inestimable value." Hedgerow terrain usually restricted observation to one or two small fields. The cub was ideally suited to adjust fire and "provide first-hand information of enemy activity in the forward areas." The air OP's had a side value too; when the cubs were out, it was found that the German curtailed his artillery activity to avoid subjecting his positions to counterbattery fire.⁶³ These planes were under the control of the corps and divisions, but army benefited by having an additional means of keeping

⁶² Ibid.

⁶³ Ibid., 123.

tabs on enemy location and activity and collecting target data.

When Third Army became operational in Europe, results from Tac/R were immediate for several reasons.

1. The presence of the 12th Reconnaissance Squadron on the Continent when Third Army became operational on 1 August 1944.

2. The proximity of the XIX TAC CP to the Third Army CP from the outset of operations on the Continent.

3. Adequate time for planning and coordinating between Third Army G2 Air and the director of reconnaissance, XIX TAC.

4. Early receipt and assignment of trained ground liaison officers to supporting squadrons before Third Army became operational on the Continent.⁶⁴

On 2 August, Tac/R aided the Third Army G2 in locating armor concentrations preparatory to the German counterattack towards Mortain and Avranches. The capability was adequately considered in the estimates and periodic reports of 2, 3, 6, and 7 August.⁶⁵ Hence, the counterattack came as no surprise on 8 August. The German missions of seizing Avranches and cutting Third Army from its supplies and contact with First Army units were never accomplished. In fact, by 19 August First and Third Armies had closed the neck of the German penetration between Falaise

⁶⁴ Third Army "After Action Report," G2 Section, 11.

⁶⁵ Ibid., G2 Annexes, XLIX and L.

and Argentan with a sizable haul of prisoners.⁶⁶

With excellent flying weather in August, planes of the 10th Reconnaissance Group were able to observe bridges, roads, woods, and towns for evidence of German resistance in the advance through the Brittany Peninsula. The Channel Islands of Guernsey and Jersey were kept under close surveillance to detect signs of withdrawal or reinforcement. With the rapid advance to the east, Third Army often relied on Tac/R to report the locations of forward elements when they stretched beyond the range of organic communications between corps and army. August marked the G2 Air's change-over from route to area reconnaissance to plan and record tactical reconnaissance.⁶⁷

For the first four days of September 1944, Third Army continued the average rate of advance of fifteen miles a day maintained during the last half of August. On 5 September, Third Army was stopped at a strong defensive line along the Moselle River in the vicinity of Nancy and Metz. The anticipated change in demand for photo reconnaissance in relation to tactical reconnaissance is reflected in

Table 3.

⁶⁶ Ibid., G2 Section, 10.

⁶⁷ Ibid., 11.

TABLE 3

COMPARISON OF AERIAL RECONNAISSANCE MISSIONS,
MOBILE VERSUS STATIC SITUATIONS, THIRD U.S. ARMY^a

<u>FORM OF AERIAL RECONNAISSANCE</u>	<u>SUCCESSFUL MISSIONS</u>	
	<u>August</u>	<u>September</u>
Tactical Reconnaissance	432	311
Photo Reconnaissance	81	223

^a Based on: Third U.S. Army, "After Action Report, 1 Aug 44-9 May 45" (HQ Third Army, APO 403, 15 May 45), Vol. II, G2 Sec., p. 15.

Tactical reconnaissance was now flown by area rather than route coverage. As shown in Figure 5 tactical reconnaissance extended well beyond the Rhine River to detect signs of German rail and road movement to reinforce the Moselle defenses. Although bad weather hindered somewhat the execution of this plan, sufficient flights were made to detect heavy rail movement west. Requests for air interdiction followed "immediately for the institution of a rail-cutting program to stop this flow of troops and supplies." Using both the P-38 and P-51 aircraft, the 10th Reconnaissance Group flew almost all operational planes at least one mission each day during the period 9-13 September. Many of these missions were also flown to screen Third Army's 400-mile exposed flank south of the Loire River.

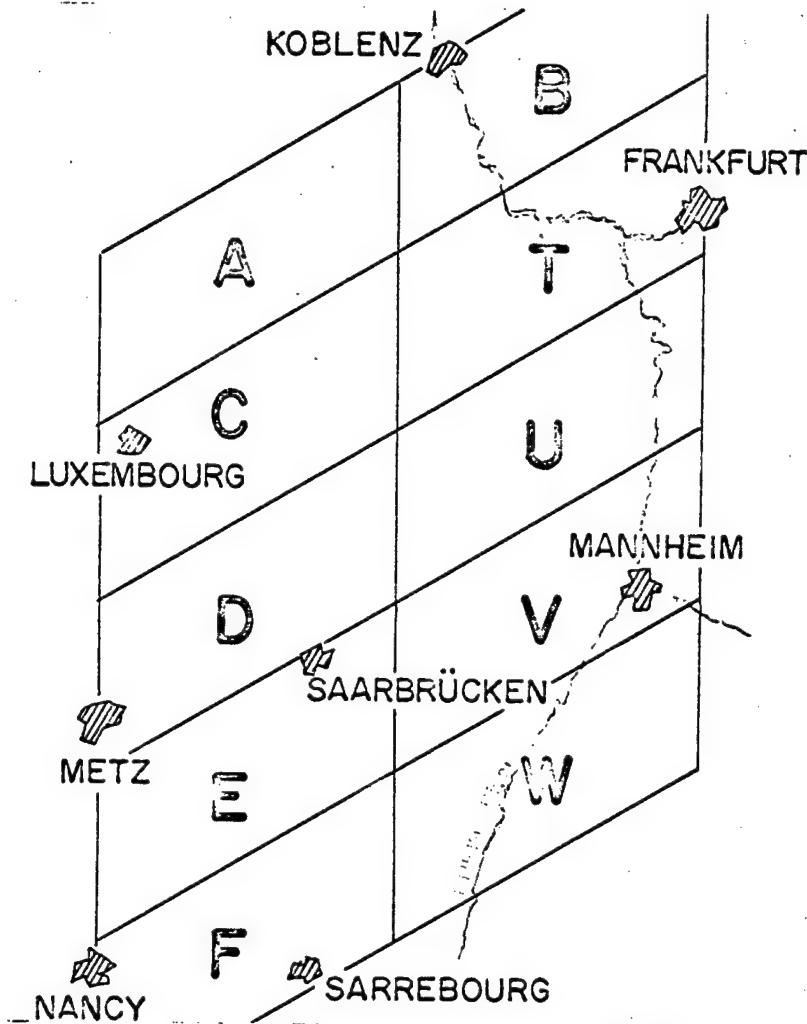


Fig. 5.--Third Army plan for area tactical reconnaissance, September 1944.^a

^aReproduced from: Third U.S. Army, "After Action Report, 1 Aug 44-9 May 45" (HQ Third Army, APO 403, 15 May 45), Vol. II, G2 Sec., p. 15.

Third Army Tac/R for October called for coverage of a 100-mile front to a depth of 120 miles. The area was further subdivided into smaller areas twenty by sixty miles⁶⁸ with the five areas nearer the line of contact being covered

⁶⁸ Ibid., 15.

three times daily and the farther five areas being flown only once each day. Bad weather prevented flights for fifteen days during the month with only four days being completely flyable. Only 28 percent of the requested missions for the month produced useful information. October marked the assignment of the 425th Night Fighter Squadron to XIX TAC. Pilot observations of movement and activities at night "were valuable to Third Army."⁶⁹

In November, Third Army G2 Air combined route and area coverage to gain knowledge of enemy reinforcements moving west of the Rhine. For example, on 17 November 300 trains or engines were reported; on 18 November, another 226 trains were observed. These reports seemed to substantiate a report from higher headquarters that a panzer and possibly an infantry division were moving to the Third Army front. On 26 November, thirty-two more trains were observed --with sufficient tanks and motor vehicles to justify the estimate that another division was entering the Third Army zone. However, the enemy division had another destination, because "three days later the German 245th Infantry Division was identified to the south in front of Seventh U.S. Army."⁷⁰

To allow the corps and divisions to share directly in results of the collection efforts of Tac/R, the army G2

⁶⁹ Ibid., 20.

⁷⁰ Ibid., 23.

Air arranged for corps and divisions to directly receive pilots' radio reports of tank and troop concentrations, the condition of roads and bridges, and the extent to which rivers in the zone of attack had overflowed their banks. These measures took advantage of sporadic flying weather on days when aircraft were grounded more often than ceiling and visibility permitted them to fly. The air-ground broadcasts were still supplemented by daily teletype reports of Tac/R results from XIX TAC.⁷¹

In late December Third Army was fighting in two directions: (1) the attack against the south flank of the German penetration in the Ardennes; (2) continued defense in the Merzig-Trier area. The Tac/R area coverage method was radically altered to meet the new situation. Each of ten areas was approximately twenty miles square, and the total coverage stretched as far north as Cologne, east to Mainz, south to St. Avold, and west to St. Hubert--approximately 200 square miles! An additional squadron was gained to increase the visual reconnaissance capability:

...orders were for Tactical Reconnaissance to find the enemy and to report positions of friendly troops. On 23 December and continuing to 31 December clear skies permitted aircraft to fly continuously during daylight hours. Very heavy movement of both tanks and motor transport was observed. This information was radioed to fighter-bombers and to the

⁷¹ Ibid.

Corps. The reports indicated the location of the enemy, the strength and the direction of the movement. All roads and railroads leading into the penetration area were under constant surveillance for indications of movement or build-up.⁷²

The area between Trier and Merzig was critical, because another German attack in this area would envelop the right flank of Third Army's XII Corps which was attacking the south shoulder of the Ardennes penetration. Tac/R flew this portion of the line daily to provide early warning of build-up on either side of the Saar River.⁷³ The demands on Tac/R during the month are reflected in Table 4.

TABLE 4

TACTICAL RECONNAISSANCE MISSIONS FLOWN FOR THIRD ARMY DURING DECEMBER 1944^a

<u>Tac/R Mis-</u> <u>sions Ac-</u> <u>cepted</u>	<u>Success-</u> <u>ful (Per-</u> <u>centage)</u>	<u>Abortive Missions Caused by:</u>	
		Mechanical Failure	Enemy Action
811	317 (39%)	490	2

^a Based on statistics: Third U.S. Army, "After Action Report, 1 Aug 44-9 May 45" (HQ Third Army, 15 May 45), p. 27.

Bad weather was the chief enemy of Third Army tactical reconnaissance in December.

In January 1945, with the withdrawal of the beaten German panzer and motorized divisions from the Ardennes salient,

⁷² Ibid., 27.

⁷³ Ibid., 31.

Tac/R teamed with armed fighter-bombers to keep routes of withdrawal under constant surveillance and attack. Claims of over 2,400 wheeled vehicles and 110 tanks and armored vehicles destroyed with the damage of an additional 1,487 wheeled vehicles and 52 armored vehicles in the three-day period 22-24 January were reported.⁷⁴ The technique of Tac/R cooperation with armed fighter-bombers continued in February with one Tac/R pilot leading three separate air-strikes on targets consisting of eastbound rail and road transport.⁷⁵ A continuation of this cooperation in April is illustrated in one Tac/R plane leading fighter-bombers to eight different targets during a single reconnaissance mission on 16 April. The results were impressive:

Six trains were attacked with the destruction of six engines and fourteen railroad cars; two marshaling yards were strafed, destroying eight engines and fifteen railroad cars.⁷⁶

The relation of this air reconnaissance and immediate action to the ground effort becomes apparent when the overall picture of the enemy situation at this time is considered. Strongpoints were organized on critical terrain, in communications centers, or villages. Defense and delay from these strongpoints impeded the army attack, or when sacrificially

⁷⁴ Ibid., 31.

⁷⁵ Ibid., 35.

⁷⁶ Ibid., 45.

and stubbornly defended, they cost attacking army units dearly in casualties.⁷⁷ It was far easier to find and destroy reinforcing or withdrawing units--or their supplies--on the road than in the strongpoints. The Tac/R and fighter-bomber combination thus illustrated the interdependence of intelligence and tactical operations in the XIX Tactical Air Command's impressive accomplishment of its ground support mission.

Photo reconnaissance.--Ninth Army's early results in getting photo reconnaissance (PR) were painfully inadequate. After assuming control of VIII Corps on Brittany on 5 September, the G2 Air of Ninth Army immediately requested aerial photo coverage. His latest photographs of Brest, the chief PR target area, were dated 28 August--hardly recent enough to trace German withdrawals, reinforcements, or improvement of defenses in that large port, garrisoned by almost 40,000 Germans. To help the PR squadron assigned the mission fly it properly, he submitted an overlay showing his desired coverage of Brest.⁷⁸

At this time, Ninth Army had no PR squadron in

⁷⁷ Ibid., I, 349.

⁷⁸ U.S. War Department, Office of Adj. Gen., Historical Documents World War II, Microfilm Job 500, Reel 107, Item 490, Ninth U.S. Army, "Report After Enemy Action, 1-30 Sep 44," (HQ Ninth Army, APO 339, 15 Nov 44), "After Action Report for Sep," 28 Oct 44, p.2.

direct support. The supporting reconnaissance group, the 363d, had three Tac/R, but no PR, squadrons. Consequently, Ninth Army PR missions had to go through 12th Army Group, Ninth Air Force, XIX Tactical Air Command, then to the 10th Tactical Reconnaissance Group, the same one supporting Third Army, and the same group that had supported Ninth Army's sole corps, the VIII, until 5 September.⁷⁹

By the time these channels had been cleared and a few days of bad weather had intervened, the mission was finally flown on 17 September and delivered on 18 September, the day that Brest fell after a ten-day attack by three divisions.⁸⁰ The value of these photographs to the attacking divisions was nil.

After this shaky start, G2 Air was able to help the 94th Division Artillery S2 obtain on 20 September gridded oblique photographs for use of their observers and fire direction centers--another instance of many in which this type photograph was used as a map substitute because it presented up-to-the-minute information of terrain and enemy defenses.⁸¹

A few days later, the 94th Division Artillery requested photographs to determine the results of fire on Mt. Bego on Quiberon Peninsula and area coverage of St. Nazaire,

⁷⁹ Ibid., 1, 2.

⁸⁰ Ibid., 4.

⁸¹ Ibid.

then under division attack. Ninth Army G2 Air did not state whether these missions were successful.⁸²

Ninth Army did receive timely basic cover of the Siegfried Line on 27 September. The photographs were defense overprints of the Line to be used in planning the commitment of the army between First and Third Armies in early October.⁸³

The weather aggravated Ninth Army's attempts to get an effective program of aerial reconnaissance started. The following extracts of the after action report of October are revealing:

1-4 Oct: . . . Due to weather no missions were flown.

5 Oct: . . . No missions were able to fly due to weather.

6 and 7 Oct: . . . Good to excellent results on 22 missions.

9 Oct: . . . The same missions as those of the 8th were requested, but due to weather no missions were flown.

10 Oct: Today's missions were the same as those requested for the 8th, but none were flown due to poor weather conditions.

11 Oct: The areas previously requested on the 8th and later dates were subdivided so as to give a total of ten (10) areas. These are to be flown twice daily, one in the morning and once in the afternoon with staggered TOA's [time over areas]. Due to poor flying conditions, no missions were flown.

⁸² Ibid., 6.

⁸³ Ibid.

12 Oct: Bad weather prevented all but one special mission from being flown. The results on this mission was [sic] poor.

13 Oct: Eight missions were flown with good to excellent results.

14, 15 Oct: Due to bad weather, no missions were flown.⁸⁴

Thirty successful missions for a field army on three flyable days in half a month!

The transfer of the Ninth Army to a zone on the north flank of 12th Army Group between First U.S. Army and Second British Army occurred on 22 October. At last the Ninth found a zone in which to finish the war after ranging a five-nation front in September and October, but the move meant the assembly of basic photo cover opposite a strange sector of the Siegfried Line. Weather caused continued disheartening results in November. In eleven days of planned daily front line cover, only six successful missions were flown.⁸⁵

The British were helpful at this time. On 3 November, officers from the British Second Army visited the Ninth Army CP "to further cooperation and mutual assistance." They brought photos of the Siegfried Line in the Ninth Army

⁸⁴ Idem., "Report After Enemy Action, 1-31 Oct, G2 Air Section," (14 Nov 44), pp. 1, 2.

⁸⁵ Idem., "Report After Enemy Action, 1-11 Nov, G2 Air Section," (19 Nov 44), p. 4.

zone--of particular value because they had been taken before the defensive installations had become overgrown with vegetation.⁸⁶

The difficulties that Ninth Army had with photo reconnaissance were discussed with Air Force representatives from XXIX Tactical Air Command and the 363d Reconnaissance Group in support of Ninth Army. Essentially, it was concluded that:

1. The Army photo Interpretation Detachment (APID) was to remain in the vicinity of the airfield.

2. The detachment would use Air Force telephone communications.

3. Neither Ninth Army nor XXIX TAC could install teletype facilities at APID for dissemination of interpretation results to army G2 Air, the corps, and divisions.

4. The army would furnish two liaison aircraft for APID use in rapid delivery of prints and mosaics.⁸⁷

The S2 of the Ninth Army Artillery Section brought out the problems facing artillery units on the provision of photos to date:

1. No verticals or obliques had been provided for fire adjustment purposes.

⁸⁶ Ibid., 2.

⁸⁷ Idem., Inclosure "Conference on APID" (19 Nov 44), p. 2.

2. Both telephone and radio communications to APID had been unsuccessful to date.

3. A radio of greater range was needed for communication with APID.

4. The great distance of APID from the army CP made close liaison difficult.

APID at that time was at the airfield quartering the headquarters of the 363d Tactical Reconnaissance Group--sixty miles from the army CP. On the part of the XXIX TAC, the significant action resulting from the conference was the attachment of the 33d PR Squadron to the 363d Tactical Reconnaissance Group.⁸⁸ After two months and two days of operations, Ninth Army finally had its own supporting photo reconnaissance squadron.⁸⁹

On 6 November, G2 of XIX Corps invited all corps and division G2's of the army to XIX Corps CP to discuss plans for the coming Roer River attack:

The chief difficulty from the G2 viewpoint was mutually agreed to be a lack of sufficient air photos of all types. It was emphasized that oblique photos were in great demand by front line infantry troops.⁹⁰

D-day for the coming coordinated attack by First and Ninth Armies was originally set for 11 November, provided 10 and

⁸⁸
Ibid., 3.

⁸⁹
Ibid.

⁹⁰
Idem., "Report After Enemy Action, 1-11 Nov, G2 Section" (19 Nov 44), p. 2.

11 November were suitable for visual bombing. If these days prevented preliminary airstrikes, the attack was to be postponed until not later than 16 November--the day it occurred. The weather permitted a preliminary air attack of one hour prior to the ground attack at 1245. With few PR missions flown 1-11 November and persistently bad weather through 15 November,⁹¹ the attack was conducted with little help from photo reconnaissance.

Plagued by bad winter weather, slow delivery of photos, unpredictable aerial reconnaissance support from XXIX TAC, and the German counteroffensive in the Ardennes, it took Ninth Army until the middle of February to achieve effective photo reconnaissance results. The army was then preparing for Operation GRENADE, the assault crossing of the Roer River to reach the Rhine, under control of the 21st Army Group. Several factors contributed to the improved support in Ninth Army:

1. Tac/R planes were equipped with cameras to permit their taking photographs while on visual missions.⁹²
2. Larger scale photographs, 1:7,500, were to be

⁹¹

First U.S. Army, "Report of Operations, 1 August 1944-22 February 1945" (HQ First Army, month of publication not given, 1946), p. 74.

⁹²

Ninth U.S. Army, "G2 After Action Report, 1-15 Inclusive, December 1944, Enemy Situation and Operations" (HQ Ninth Army, APO 339, 19 Dec 44), p. 3.

produced by the 363d Reconnaissance Group to aid front line units in unaided interpretation.⁹³

3. Night photography, flown by the 155th Squadron, was added to the capabilities of the 363d Reconnaissance Group and the direct support afforded Ninth Army.⁹⁴

4. Addition of a multiprinter to the one organic to APID to help meet the increased demands of the corps and divisions for photo reproductions. The British loaned an additional printer with operating personnel until one could be secured through U. S. means.⁹⁵

5. Technical assistance and additional facilities from the 21st Army Group in the provision of gridded 14 x 18-inch contact prints and other special photographs.⁹⁶

6. Gradually improving weather from late January to 1 March 1945.⁹⁷

⁹³ Idem., "G2 After Action Report, 16-31 January 1945, Inclusive, Enemy Situation, Operations, Dispositions, and Capabilities," p. 4.

⁹⁴ Ibid., 3.

⁹⁵ Idem., "G2 After Action Report 1-15 February 1945, Inclusive - Enemy Situation, Operations, Dispositions and Capabilities," p. 4.

⁹⁶ Idem., "G2 After Action Report 1-15 March 1945, Inclusive - Enemy Situation, Operations, Dispositions and Capabilities," (19 Mar 45), p. 4.

⁹⁷ XIX U.S. Corps, "Applications of Information on Weather and Climate in XIX Corps" (HQ XIX Corps, Ofc of G2, APO 270, n.d., 1945), pp. 12, 13, quoting Mobile Weather Detachment ZU Study, 3 Feb 45.

During the preparation for GRENADE, APID was able to get uninterpreted photos in two copies to the corps within twenty-four hours after the missions were flown. Meanwhile, APID began and completed first-phase interpretation for information of immediate tactical importance while the photos were enroute. Significant findings were reported to corps and divisions by the artillery radio net.⁹⁸ The lack of obliques was solved by Ninth Army's 125th Liaison Squadron with an L5 plane. The G2 Air obtained a K20 camera, recruited a pilot, and began a series of flights at altitudes not over 1,500 feet head on into German lines. Later, a 36-inch telephoto lens was added to the camera. "This one plane and pilot produced excellent pictures of the Roer, and later of the Rhine, preceding the crossings."⁹⁹

The credibility of this feat is established by a comparison of the estimated days of flyable weather for various aircraft in January 1944, based on climatological studies to that time:

⁹⁸ U.S. Army Ground Forces Report C-956, "Organization for Combat of G2 Sections; G2 Functions" (HQ ETOUSA, APO 887, 17 May 45), p. 3.

⁹⁹ Ibid., 6.

TABLE 5

ESTIMATED DAYS OF FLYABLE WEATHER, NINTH ARMY ZONE,
JANUARY 1944^a

		<u>Average</u>	<u>Maximum</u>	<u>Minimum</u>
Medium bombers and fighter- bombers:	Based on France	3	7	0
	Based on Belgium	6	10	1
Artillery observation planes:	25 favorable days maximum ^b			

^a XIX U.S. Corps, "Applications of Information on Weather and Climate in XIX Corps" (HQ XIX Corps, Ofc of ACofS, G2, May 1945), p. 8, reproducing Appendix 3 to Annex 1 to FO 29 "Terrain, Enemy Defense and Weather Data," 12 Dec 44.

^b During this period at least a 1,000-foot ceiling and visibility of 2,200 yards were predicted 23-24 days of the month.

As forecast, the weather did permit considerably more flights by L5 planes than the high performance aircraft of the Air Force.

What about the use of these photos at lower echelons? Their value to divisions is suggested by the number of copies they requested from corps. The 78th Infantry Division considered forty copies of each picture a minimum when three regiments were committed. This ensured the delivery of at least one photograph to company level. The G2 of the 104th Infantry Division said that 96 copies of the

area 2,000 yards in front of the division were considered optimum for basic cover. The above number would be reduced to forty-eight with photos having more than fifty percent overlap. All the divisions in XIX Corps endorsed the need for obliques for "river crossings, bridging operations, attack of defensive lines, patrol and OP use." A report by the S2 of the 119th Infantry Regiment reveals the value of photos to the regiment during the seizure of Wurselen, Germany:

The regimental S2 used the aerial photographs to locate enemy dispositions and as a basis for all intelligence overlays sent to lower units. Study of the photographs in one case saved the attack from bogging down by disclosing an antitank ditch. The prisoner of war interrogation team used the photographs to orient prisoners and had them point out the actual houses or streets in which they had been fighting. Eight company and battalion command posts and nine companies of the 8th and 29th Panzer Grenadier Regiments were located in this manner. Exact location of one minefield was determined when a prisoner was able to point out on the photograph the trees between which the mines were placed. The cannon company used aerial photographs to select likely locations for advance gun positions; the antitank company used them to assist in the selection of positions for night defense; and the service company to select possible supply routes and bivouac sites.¹⁰⁰ (Underlining supplied.)

Ninth Army gained effective results from photo reconnaissance after six months of combat. Much of this delay was caused by bad weather, but deficiencies in coordination

¹⁰⁰ XIX U.S. Corps, "Present Sources of Combat Intelligence" (HQ XIX Corps, Ofc of ACofS, G2, APO 270, May /1945), pp. 20, 21.

and communications, unresponsive Air Force support, and untrained personnel accounted for much of the difficulty. The expense of this lesson might have been costlier had Ninth Army opposed a stronger enemy than the steadily collapsing Wehrmacht.

Summary

Prisoner of war interrogation.--Prisoner of war interrogation was the most profitable source of information in the three armies studied. Order of battle information was often furnished by prisoners. The disposition, strength, training, and identification of German units and commanders were gained through interrogation. The attitude and willingness of prisoners to talk were important indicators of German morale. Prisoners provided reliable estimates of their units' damage and casualties by artillery, air, and ground attacks, as in France after the battle of the Falaise-Argentan pocket in August 1944.

The separation of prisoners by unit, age, grade, and nationality was found expedient for profitable interrogation and for protection against possible reprisals by fanatic Nazi prisoners. Interrogators in Third Army specialized in certain German divisions and sought to determine planned actions as well as current information on strength, dispositions, and locations. For example,

prisoners provided advance warning of the German attack on Mortain on 7 August.

Interrogation was frequently the primary source of information on the locations of command posts and communications centers. Prisoners also revealed the mission and strength of mobile reserves.

Civil affairs planning was aided by information gained on resistance movements and the estimated loyalty and background of officials of cities about to be captured. In Third Army, the counterintelligence effort was aided by prisoners who revealed the existence and plans of sabotage and stay-behind units along with the locations of caches of weapons and explosives.

Civilian interrogation.--As linguists in the area of operations, military intelligence interpreter (MII) teams were initially used in England to brief troops on the language, customs, and geography of France. On the Continent, they worked with civil affairs teams in contacting French city officials and civilians in seeking information on the locations of German units, strengths, withdrawal routes, and peculiarities or weaknesses.

In Third Army, German teams were hastily formed as the German border was approached. The French teams were held in the communications zone for the production of

strategic intelligence.

In their interrogation of civilians, MII teams were most helpful in producing information on targets for airstrike or further reconnaissance, as illustrated by their help in locating and describing positions in the Siegfried Line. The observations of civilians were limited by their unfamiliarity with military terminology and the characteristics of military units. Consequently, their information was frequently unreliable and required verification through other sources.

Office of Strategic Services teams.--Attached to army headquarters, these teams were best located away from the headquarters with still another location as a holding area for the briefing and dispatch of agents into enemy territory.

In First Army, the OSS network provided the chief point of contact in preinvasion assignment of missions to the French Forces of the Interior. Missions assigned to the FFI included: (1) the cutting of German wire communications to force their reliance on radio with improved chance of interception by Allied signal intelligence units; (2) the recruiting of guides for U.S. patrols and attacking U.S. units. Information furnished the OSS by the FFI included German strengths, identifications, and withdrawal and reinforcement

routes.

Third Army found that OSS contacts were also valuable in furnishing accurate information for artillery and airstrikes on targets generally located through other sources. OSS agents were frequently successful in parachuting behind enemy lines, where their missions included the transmission of radio reports, the recruiting of special agents, and the sabotage of German vehicles.

Ninth Army intelligence operations showed that OSS teams were normally the fastest contact with Allied sources having information concerning the army area of interest. Problems in effecting successful information-producing infiltrations of German forward units at the Siegfried Line were: (1) the absence of a civilian population in which to hide because of the German practice of removing the majority of civilians from the forward area; (2) the high density of German troops in the vicinity of the Line; (3) the danger of U.S. artillery; (4) adverse weather conditions; and (5) the danger of arrest of agents by friendly troops.

For the collection of information, the parachuting of agents behind enemy lines proved more successful than attempts at infiltration through forward units.

Radio intercept.--This source of information proved most lucrative during fluid situations, such as the St. Lo

breakthrough and the Ardennes counteroffensive, when German divisions were moving and forced to communicate by radio. Radio intercept of enemy transmissions provided critical information of German locations and plans and contributed directly to the infliction of considerable damage on German units.

Enemy documents.--Documents captured daily by the armies were often measured in hundreds of pounds rather than numbers--so frequent was their capture. A small team was attached to army headquarters to process documents which yielded information on organization, plans, tactics, staff procedures, and signal codes. Before the assault on the Siegfried Line, documents were found that gave important tactical information on minefield, tank obstacle, and artillery concentration locations. Documents often provided information, such as enemy signal coding instructions and geodetic survey data, of value to the special staff sections. The psychological warfare effort was aided by captured documents on Nazi doctrine.

Documents were not exploited fully in the armies because corps and divisions did not have collecting and examination teams to immediately screen and gain information from captured papers at those levels.

Aerial photographs.--Large-scale vertical photo-

graphs for basic cover of the area of operations were most frequently required, because armies, corps, and divisions needed this complete coverage with which to update maps and compare later photographs. To obtain current locations of enemy defenses, subsequent photographs were then taken for the construction of enemy situation maps and overlays and defense overprints. Photographs were also used to show the location of artificial and natural barriers not shown on the maps of standard issue to troops. Low-level oblique photographs were a valuable supplement to planning at division and lower levels, especially for patrol use, bridging operations, and the assault of river lines and fortified positions. Gridded obliques were valuable aids to forward observers and fire direction centers in planning and adjusting artillery fires.

At regimental level, photographs were of value to interrogators for the questioning of prisoners concerning enemy troop dispositions, the identity and location of command posts, and the locations of minefields. Photographs were also helpful in pin-pointing future friendly gun positions during an attack and in selecting supply routes and bivouac sites.

Ninth Army was particularly slow in achieving satisfactory results from aerial photography, partially because

of conditions beyond the army commander's control. Principal delays were caused by: (1) inadequate planning for the photographic reconnaissance support of the army; (2) bad weather; (3) an inadequate communications system connecting the army photo center with army, corps, and division command posts.

Actions taken to obtain satisfactory results included: (1) using liaison aircraft for the delivery of prints; (2) taking larger scale photographs requiring less dependence on trained interpretation; (3) acquiring technical assistance from army group and the British; (4) the equipping of tactical reconnaissance planes supporting Ninth Army with cameras to permit dual-purpose reconnaissance sorties; (5) receiving the added capability of night photography.

Tactical reconnaissance.--The armies' reliance on tactical reconnaissance increased during fluid situations. Initially, route surveillance was primarily required of tactical reconnaissance. In August 1944, with increasing German efforts at camouflage and off-road movements, a combination of route and area surveillance was undertaken. Tactical reconnaissance was used to obtain information on tank and troop concentrations, the condition of roads and bridges in the zone of attack, and the extent to which rivers astride the zone of attack had overflowed their banks.

The Third Army aerial reconnaissance plan called for the division of the army area of influence into two bands of sectors, each about 20 miles wide, across the army zone. The first band extended 60-75 miles into enemy territory and was normally flown three times daily. The extreme limits of the second band extended 120-150 miles into enemy territory; this band was normally flown once daily. During good weather, visual reconnaissance was effective for locating enemy units and their directions of movement, whether by road or rail.

Tactical reconnaissance was particularly effective in serving as the "eyes" of advancing armor columns to provide early warning of enemy positions, reinforcement, or counterattack. Reconnaissance aircraft often led armed fighter-bombers to the attack of enemy formation under this arrangement. Air-ground communications were direct to battalion level in the attacking armor column.

Tactical reconnaissance was frequently used to provide a measure of flank security for attacking corps and armies as in the XIX Tactical Air Command's screen of the XII Corps flank during the counterattack against the south flank of the German salient caused by the Ardennes counteroffensive. Reconnaissance aircraft covered effectively the routes of withdrawal from the salient used by the Germans

during January 1945.

Weather was the greatest single hindrance to successful tactical reconnaissance. Accounting for sixty percent of abortive missions in Third Army in December 1944, bad weather far outweighed mechanical failure and enemy action in reducing the number of effective, information-producing sorties.

Faulty communications between ground command posts and supporting squadrons also reduced the effectiveness of visual reconnaissance. Measures adopted to overcome this deficiency included: (1) use of ground liaison officers at supporting airfields; (2) regular dispatch of ground situation reports to airfields; (3) pilots' inflight reports to G2 Air's; (4) dispatch of daily tactical reconnaissance reports to army, corps, and divisions by teletype; and (5) placement of maximum reliance on preplanned requests.

Reconnaissance by light aircraft.--The Army L5 liaison airplane proved a versatile reconnaissance vehicle during operations in northern Europe. Aside from its use as an observation platform for the adjustment of artillery fire, the light plane carried pilots and observers who brought back information on the dispositions of units and the locations of enemy artillery batteries short distances behind enemy lines.

Ninth Army used the L5 plane for taking low-level

oblique photographs in preparation for the crossing of the Roer River in February 1945. Because the L5 plane could fly with lower ceiling and visibility limits than Air Force high-performance aircraft, it was particularly useful during the winter months of adverse weather conditions in Europe.

Conclusion.--Interrogation of prisoners of war was the most consistently useful source of information for the G2 during operations in northern Europe. The interrogation of civilians was a limited, often unreliable source of information. Documents were not fully exploited because collecting teams were not attached lower than army level for their screening and examination. OSS agents parachuted behind enemy lines were more productive sources of information than agent-infiltrators. OSS teams were particularly valuable in assembling information from Allied intelligence sources in the army area of interest. Signal intercept relayed critical information of enemy locations and movements and led to the infliction of heavy damage on German units which were careless with communications security.

Aerial reconnaissance, with procedures developed largely during the OVERLORD planning phase in England, proved a valuable source of information, second only to the interrogation of prisoners of war. The usefulness of aerial reconnaissance was reduced by bad weather, inadequate communica-

tions between airfields and supported commanders, and initially unresponsive channels of request. The Army L5 plane, a versatile aerial reconnaissance vehicle, proved a partial solution to the problems which hindered maximum exploitation of the capabilities of supporting tactical air commands.

CHAPTER IV

PROCESSING INFORMATION INTO INTELLIGENCE

Introduction

Purpose.--This chapter deals with the information known by First, Third, and Ninth Armies prior to the German counteroffensive through the Ardennes Forest on 16 December 1944. The period of time considered is from 1 November through 15 December, sufficient time for the armies to employ their collection agencies to determine the German attack capability before the offensive. How these agencies were employed, what information was collected, and what interpretation ensued are the objectives of this chapter.

Available agencies.--Thus far in this paper lesser mention has been made of the capability of divisions and corps to support the army collection effort; yet, front line units were potentially the heaviest contributors to the collection effort because of their proximity to the enemy. Except for OSS and document teams and signal intelligence units, divisions had the same attached teams, in smaller numbers, that field army had. Aerial reconnaissance could not be employed with the same ease at division level; however, divisions could

preplan and request specific collection missions.

The time period of this chapter occurred during the worst flying season in Europe. As discussed in Chapter III, bad weather kept Tac/R and PR planes grounded more days than they could fly. Hence, units in the Ardennes were forced to rely on other sources of information: interrogation of prisoners and civilians and reports of patrols, observations posts, and front line soldiers. Standing operating procedure provided the chief direction of these agencies. Corps and division G2's were normally left to their own initiative to devise collection missions for the agencies best able to exploit these sources.

**Intelligence Derived in First U.S. Army
before the Ardennes Counteroffensive**

VIII U.S. Corps.--The information of the German build-up will first be considered at division level, proceeding from south to north, in the VIII Corps sector. Figure 6 shows the enemy situation opposite First and Ninth Armies at 1200, 15 December 1944, as known at Headquarters, 12th Army Group.

The 4th Infantry Division, a veteran unit of the Normandy landing, replaced the 83d Division in the VIII Corps sector on 7 December in the southern part of the Grand Duchy of Luxembourg. All three of its regimental combat teams were

121

on line¹ in a sector thirty-five miles wide. On 8 December, the 212th Volksgrenadier Division was identified as opposing the 4th with higher headquarters reporting a possible panzer formation in the vicinity of Bitburg and Wittlich. Elements of the 353d Infantry Division² were also estimated to be within reinforcing distance of the 212th Division. From 9-15 December, the 4th Division after action report noted "small amounts of harassing artillery fire against road intersections and likely main supply roads." Otherwise, the sector was quiet with opposing units conducting continued defensive action "east of the Sauer and Moselle Rivers." A single plane dropped a bomb on 4th Division positions on 15 December--"The only offensive action taken by enemy aircraft during the period."³

The 4th Division G2 published an "Estimate of the Enemy Situation" on 10 December 1944, extracts of which follow:

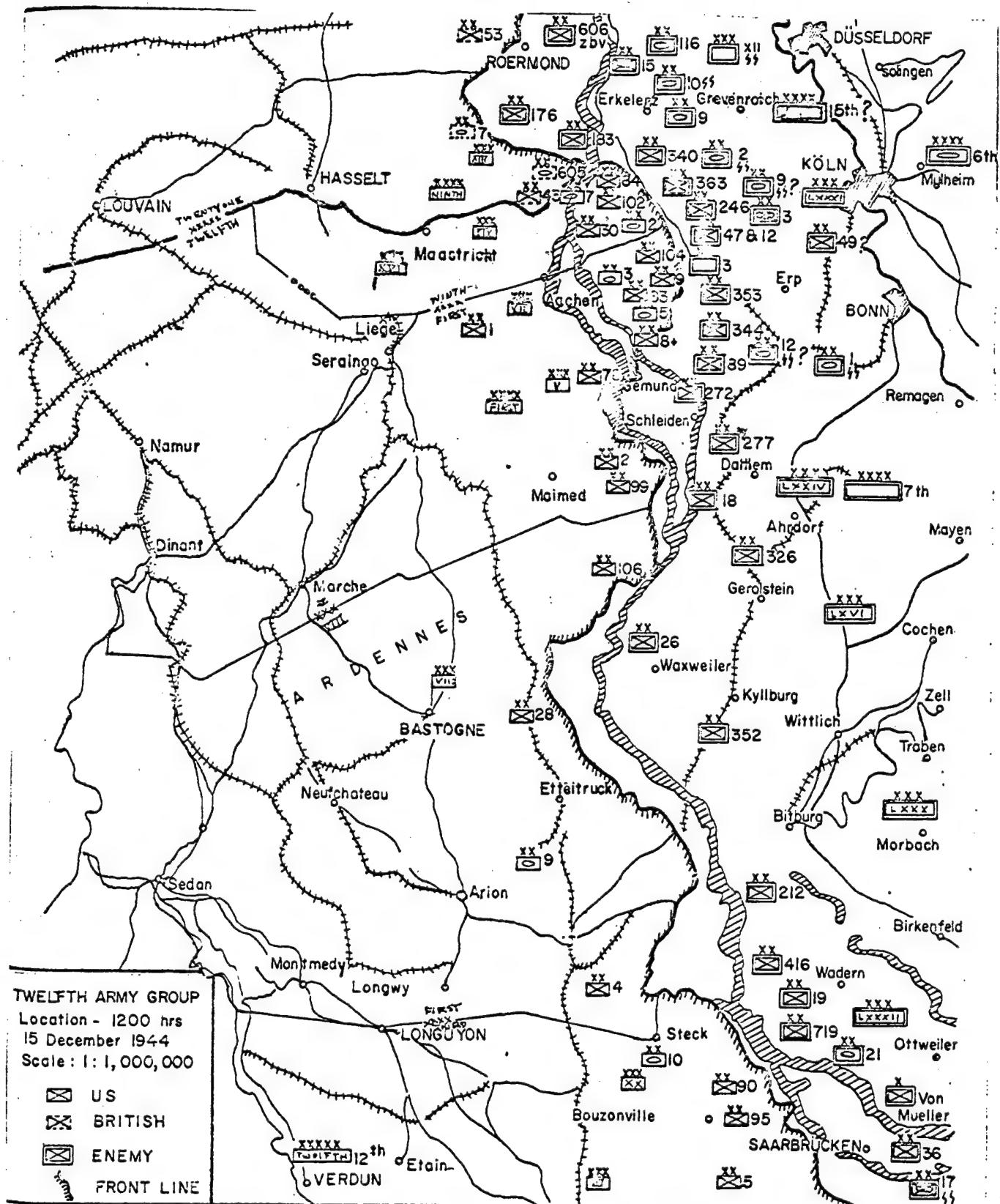
1. SUMMARY OF THE SITUATION.

a. Enemy activity in the 4th Infantry Division sector has been very light and purely defensive in

¹U.S. Dept. of Army, "American Intelligence on the German Counteroffensive, 1 Nov.-15 Dec. 1944," ed. Royce L. Thompson (Washington 25, D.C.: Hist. Div., Sp. Stf., U.S. Army, Mar. 1949), p. 184.

²A discrepancy is noted; Fig. 6 shows the 352d Division near the sector of the 4th Division. The 28th Division reports agree with the 4th Div in finding the identity of this German unit as the 353d Division.

³Ibid., 191, quoting the "4th Div After Action Report, Dec. 44," Sec III "Intelligence."

Fig. 6.--Situation, First and Ninth Army sectors, 15 Dec. 1944^a

^a Reproduced from: U.S. Dept. of Army, "American

attitude maintaining reconnaissance patrols and at times infiltrating small groups through the line to capture prisoners and determine disposition and strength. Present intelligence indicates that the majority of enemy strength defends the line from BOLLENDORF (L-1040) to GREVENMACHER. (L-0721).

b. Higher headquarters reports that there is a Panzer formation suspected in the BITBURG area. Probably of brigade size.

c. There are within the 4th Infantry Division sector several bridgehead sites on the SAUER and MOSELLE RIVERS. The most favorable from the standpoint of terrain, road nets and location of enemy troops and armor are located between BELLENDORF and GREVENMACHER.

2. CONCLUSIONS.

a. Enemy capabilities.

(1) The enemy is capable of continuing the defense.

(2) The enemy is capable of staging raiding parties locally.

(3) The enemy is capable of staging raids in strength.

(4) The enemy is capable of staging a major effort to establish a bridgehead between BOLLENDORF and GREVENMACHER preparing to move on LUXEMBOURG.

b. Discussion: The implementation of capability 2a(1) is current as well as 2a(2). Capability 2a(3) is probable and capability 2a(4) is possible, but at the moment remote.⁴

The above estimate was disseminated to 4th Division units, to VIII Corps, and to the 9th Armored Division on the left (north) flank of the 4th.⁵

Intelligence on the German Counteroffensive, 1 Nov.-15 Dec. 1944," ed. Royce L. Thompson (Washington 25, D.C.: Hist. Div., Sp. Stf., U.S. Army, Mar. 1949), frontispiece.

⁴ Ibid., 193, 194, reproducing 4th Inf Div "G2 Estimate of the Enemy Situation," 10 Dec 44.

⁵ Ibid., 194.

As indicated by the 4th Division G2 Journal, VIII

Corps intelligence summaries were received regularly during the period. The last First Army Periodic Report received before the offensive, for the period 130001-132400 December, was logged in at 1124, 15 December. The journal does not reflect receipt of army periodicals of 14 and 15 December.⁶

A significant division IPW team report was forwarded to the division G2 during the night of 15-16 December. It involved the interrogation of two deserters from the 44th Fortress Machinegun Battalion, captured at 1830, 15 December. The MORALE paragraph of the report stated:

The enemy commanders have tried lately to upholster the morale of the men by giving them pep-talks about reserves that the Wehrmacht has in store. In an orientation which was held two days ago the troops facing us were told that a panzer division and two infantry divisions were in the rear. These troops will soon make an offensive of major proportions, so "You better hold out till [sic] they come," the Nazis told their men. The reaction of the men was a shrug of the shoulder and the thought: "This is not the first time that they promised us tanks and men."⁷ (Underlining supplied.)

It is noteworthy that this unit was on line seven days before it was identified⁸--hardly an indication of an aggressive

⁶ Ibid., 197, quoting "miscellaneous entries" from the 4th Div G2 Journal from 7-16 Dec 44.

⁷ Ibid., 204, quoting IPW Team # 34 Report, 151800-152400 December. The team was attached to the 8th Regiment.

⁸ Ibid.

collection effort. The substance of this report was not repeated in any division periodic report nor was evidence found of its dispatch to VIII Corps.⁹

Apparently, neither the publications from higher headquarters nor the IPW report caused a stir in the G2 section, because the journal further reflects at 160900 December: "G2 left CP for a 3-day pass to civilization."¹⁰

Due to a breakdown in communications caused by enemy artillery fire and the extended frontage of the division, the seriousness of the German attack at 0700 against the 12th Regiment was not realized at division until about 1100, 16 December.¹¹ At 1729, the division commander notified the commander, 12th Regiment that the 212th Volksgrenadier Division had been identified as the German unit attacking the regiment, and that the 212th was one of five enemy divisions attacking across the corps front.¹²

What had the 83d Division discovered about the enemy before its relief by the 4th Division? The division's first

⁹Ibid., 189

¹⁰Ibid., 197, quoting "miscellaneous entries" from 4th Div G2 Journal from 7-16 Dec 44.

¹¹Ibid., 309, quoting extracts from a combat narrative "Battle of Luxembourg, 4th Inf Div, Dec. 16-24, 1944" written by the combat historian of the 4th Div, LCol. W. T. Gayle.

¹²Ibid., quoting "12th Infantry Regiment After Action Report, December 1944."

periodic report in this sector on 25 September described the following enemy capabilities:

- a. Vigorously defend MOSELLE River line.
- b. Conduct local counterattacks utilizing immediate reserves.
- c. Launch a counterattack anywhere on our front, utilizing all or a portion of the main reserve--estimated by XX Corps at 12,000 men.
- d. Expand bridgeheads held W of MOSELLE River.¹³

Priorities were not assigned these capabilities.

The G2 issued periodic reports regularly after this date, but the Capabilities section invariably contained the notation "no change." The 83d Division passed from control of XX Corps to VIII Corps on 11 October.¹⁴ Of several possibilities, one might conclude that, during the ensuing two-month period, VIII Corps did not revise the estimate of reserves in c. above, or that the 83d Division was indeed on a stagnant front!

The 9th Armored Division was assigned a forward sector in the vicinity of Bigelbach on 10 December. Since 20 October, the division had been in corps reserve vicinity Bastogne with its subordinate units attached periodically to

¹³ Idem., 219, quoting "G-2 Periodic Report #46, 240001A-252400 Sep 44."

¹⁴ U.S. Military Academy, The War in Western Europe, Part I, June to December, 1944 (West Point, New York: Department of Military Art and Engineering, 1949), p. 228.

the 2d and 83d Divisions for battle indoctrination. The summary of enemy action for November included:

. . . limited patrolling, improvement of defensive positions and sporadic artillery fire with very little air reconnaissance. There was a marked shifting of enemy units on the line amounting to almost 100 percent turnover of units in contact.

. . . The enemy seemed to be using this quiet sector as a "training area" to give reorganized and Volksgrenadier units some front line experience before sending them to an active zone.¹⁵

On 9 and 10 December, the division periodic report contained extracts of higher headquarters reports. On 11 December, the G2 periodic report expressed the belief that elements of the 353d Volksgrenadier Division were opposing the division on a lightly held sector, seemingly content to "occupy prepared positions along the front." The section Enemy Capabilities contained the notation "no change." Periodic Report 54, 16 December, was missing from the file of G2 periodic reports. Periodic Report 55, 17 December, reported the units contacted during the first day of the offensive as the 286th and 288th Regiments of the 276th Volksgrenadier Division.¹⁶ The division after action report commented on the 16 December attack:

¹⁵U.S. Dept. of Army, "American Intelligence on the German Counteroffensive, 1 Nov.-15 Dec. 1944," ibid., 175, quoting "After Action Report, Nov. 44," 9th Armored Division.

¹⁶Idem., 173, quoting extracts from the 9th Armd Div. G2 Periodic Report files, Dec 44.

a. Surprise: Action was a surprise; no adequate notice or indications having been received of presence of complete new En Div on 9 AD front, or 7 new Divisions on Corps front.¹⁷

During its short period on line before the offensive, 9th Armored Division reported only two prisoners of war captured on 15 December.¹⁸ Extracts from division files cited in the footnotes below do not state what information, if any, was gained from these prisoners.

Relieving the 9th Division on 19 November, the 28th Infantry Division moved from the Schmidt area under control of V Corps to the vicinity of Madernach, Luxembourg in the VIII Corps sector. Its activities from 19-30 November consisted of defense, aggressive patrolling, and training for future operations.¹⁹ Extracts from the first periodic report follow:

1. Units.--The 26th Volksgrenadier Division of the LXXX Corps departed POSEN about two weeks previously, following reorganization after the Eastern Front destruction of the 26th Infantry Division, and took over the sector formerly held by elements of the 2d Pz Division. . .

The 353d Infantry Division (LXXX Corps) was identified, but was soon moved from the sector.

The 91st Infantry Division was identified, but PW

¹⁷ Idem., 173, quoting extracts of the "G2 After/Action Report, December 1944," HQ 9th Armd Div.

¹⁸ Ibid., 172.

¹⁹ Idem., 151, quoting extracts from the "After Action Report, Nov. 44," HQ 28th Inf Div.

reports and heavy vehicular activity in the LEIDENBORN area suggested probable departure.

2. Reserves.--The only known reserves were the 39th Infantry Regiment of the 26th Volksgrenadier Division and an estimated 40-50 tanks on the Corps front. The reported relief of the 91st Division last night combined with the desperate need for reserves in other sectors points to a depletion of available reserves on the Div. front. It must be noted, however, that with the available road and rail net at the enemy's command he is capable of very rapidly building up a considerable force at any point along the entire front. (Underlining supplied.)

3. Capabilities.--a. To disrupt our training and re-equipping program with raids penetrating deep into our positions with forces of 25-50 men anywhere along the front day and night.

b. To interfere with our current activities by use of saboteurs and agents operating behind our lines. These activities can cause confusion among our troops and can be executed better by night than by day.

c. To launch a distracting attack on ETTELBRUCK (P8240) with additional forces which must be moved into the area and the 40-50 tanks reported in rear of his present line. Such action would serve to attract some of our forces from other more active fronts; to sever LUXEMBOURG's rail lines; and to re-establish the German influence among former collaborators who could harass our troops with profit.²⁰ (Underlining supplied.)

* * *

No relative probability of adoption was assigned the capabilities. The relief of the 2d Panzer Division from forward positions by the 26th Volksgrenadier Division suggested a commitment of armor in another sector, perhaps outside VIII Corps area, or the buildup of mobile reserves. Uncertainty regarding the 91st Division and the 2d Panzer Division should

²⁰ Idem., 151, reproducing "G-2 Periodic Report #114, 20 Nov 44," HQ 28th Inf Div.

have focused the collection effort on the determination of the location of these divisions. We shall see if it did. Apparently, the G2 knew only of local reserves as opposed to strategic or mobile reserves, unless comment on strategic reserves was considered inappropriate at division level. This is unlikely. Commendably, the G2 analyzed enemy terrain and its suitability for rapid movement of large German reserves anywhere on the division front.

However, in spite of this terrain evaluation, the G2 ascribed limited attack capabilities to the German. Even with reinforcements, enemy forces in contact were estimated to have the capability of striking no deeper than Ettelbruck, about eight kilometers west of the line of contact.

From 20-30 November, the 26th Volksgrenadier Division continued to oppose the 28th Division. Additionally, the 352d Volksgrenadier Division²¹ was identified by IPW as having relieved the 353d Infantry Division during the night of 24-25 November. The 352d was on line south of the 26th Volksgrenadier Division. In subsequent periodic reports, the capabilities cited in 3a, b, and c above were considered

²¹In November and early December, IPW reports conflicted as to whether the 352d was an infantry or volksgrenadier division. Periodic Report #130, 5 Dec 44, first confirms the type division as volksgrenadier, although division records do not indicate how the G2 confirmed the identification.

current except that the capability of the 21st Panzer Division for attack on Ettelbruck was recognized on 23 November.

Capability 3c then read:

(3) c. To launch a distracting attack on ETTELBRUCK (P8240) with additional forces which must be moved into the area. The 21st Panzer Division could be used for this purpose within 10 hours after its movement from Q29 area toward our front has begun . . . ²²

The remainder of the capability was stated as before. This estimate continued through 3 December.

The 21st Panzer Division was not in reserve at this time; it was in contact with Third Army units. This panzer formation was in the German line opposite XII Corps in the Battle of Metz on 20 November,²³ and in the vicinity of Losheim, south of Trier, opposite XX Corps on 27 November.²⁴ On the later date, it was about 70 kilometers from the German forward positions opposite Ettelbruck. The locations and capabilities of strategic reserves, if known, were not mentioned in 28th Division periodic reports and estimates of November.

²²U.S. Dept. of Army, "American Intelligence on the German Counteroffensive, 1 Nov.-15 Dec. 1944," 152, quoting "G-2 Periodic Report #118," 23 Nov 44.

²³Third U.S. Army, "After Action Report--1 Aug. 1944-9 May 1945" (HQ Third Army, 15 May 1945), Vol. II, G-2 Annex, p. XCIII, reproducing "Order of Battle Map to Accompany G2 Periodic Report," 20 Nov 44.

²⁴Idem., p. CI, reproducing "Order of Battle Map to Accompany G2 Periodic Report," 27 Nov. 44.

In December, additional PW's from the 26th and 352d Volksgrenadier Divisions were captured. Those from the 26th Division reported that their mission was to get "a limited amount of combat experience."²⁵ On 5 December, the missions of the 352d Division were learned: "To hold the sector, and gain limited combat experience, especially with respect to U.S. Infantry tactics; to make both reconnaissance and combat patrols." Prisoners of the 352d Division claimed that their ammunition was plentiful, their food was fair, and their equipment new.²⁶

At 0800, 11 December, the division G2 ordered the chief interrogator at the division PW cage to ask about the evidence of an attack plan or "any relief anywhere up and down the line." The reply that evening did not indicate the number of PW's questioned, but its content was clear;

There are no rumors of attack, and PW believes it unlikely because of incomplete state of training. Relief is possible, but PW doesn't know anything about it. . . .²⁷

The use of singular verbs in the above entry and the absence

²⁵U.S. Dept. of Army, "American Intelligence on the German Counteroffensive, 28th Division 1 Nov.-15 Dec. 1944," 152, quoting "G2 Periodic Report #128," 3 Dec 44.

²⁶Idem., 153, Extracting 28th Div "G2 Periodic Report #130," 5 Dec 44.

²⁷Idem., 154, Extracting 28th Div "G2 Periodic Report #136," 11 Dec 44.

of evidence that more than one prisoner was questioned render the conclusion that the interrogation that day was limited or that recent captures were few. There was no mention of the identification of the parent unit or units of the PW questioned.

On 11 December, forward units of the 28th Division began to report increasing German activity, especially at night. A civilian reported that the towns of Niedergeckler and Geichling were "full of soldiers."²⁸ On 13 December, "motor vehicle traffic moving south from Preischeld" was heard at night from 1950-2020. There was another report of enemy traffic at 2200. And then the following note in the report: "Movement of vehicles during night was also heard on north and south sectors of VIII Corps. Direction of movement unknown."²⁹ Traffic was heard again during daylight on the morning of 14 December.³⁰

A woman informer turned herself in to the 28th Division in the vicinity of a division artillery observation post the morning of 14 December. She alleged that she had been a

²⁸ Idem., 154, extracting 28th Div "G2 Periodic Report #136," 11 Dec 44.

²⁹ Idem., 154, extracting 28th Div "G2 Periodic Report #138," 13 Dec 44.

³⁰ Idem., 154, extracting 28th Div "G2 Periodic Report #139," 14 Dec 44.

member of a work party within German lines and "been taken as far back as Bitburg and the woods were full of German equipment." Detailed interrogation of this woman was not completed until 1045, 15 December. The corps G2 was notified of the woman's capture and the nature of her information at 1305, 15 December, and it was agreed that night to take her to the First Army cage for further interrogation. She didn't start the trip, however, until 0930, 16 December.³¹ By that time the offensive had started.

The periodic report for 15 December noted a significant change in the uniforms and activities of the troops manning forward pillboxes. A forward observation post reported that enemy troops along a 500-meter stretch of the front "were dressed in overcoats." An improvement in the discipline and appearance of these enemy soldiers was further observed:

The bearing of the soldiers was more soldierly than heretofore. Guards were relieved in double time, and much saluting was observed. Digging of many small holes, and stringing of wire (type unknown) were also observed.³²

The report concluded with a note that enemy vehicular movement for the period 12-15 December signified a possible German buildup.³³

³¹ Idem., 162, 163, based on Entries 2503, 2578, 2606, 2633, 2624, 2665, and 2709 in 28th Div G2 Journal, 14-16 Dec 44.

³² Idem., 154, extracting 28th Div "G2 Periodic Report #140," 15 Dec 44.

³³ Ibid.

A buildup indeed had occurred. In the first day of the counteroffensive, the 28th Division identified elements of the 2d Panzer Division, the 116th Panzer Division, the 5th Parachute Division, and the 560th Volksgrenadier Division in addition to the two divisions previously tabbed.³⁴ A picture of enemy reserves in the sector of the 28th Division also began to form from IPW reports. The 11th Panzer Division was reported east of the Our River, but had not been contacted. A deserter from the 5th Parachute Division reported that unit in reserve.³⁵

Estimates of the situation for the period 1 November-15 December were not in the division G2 files, although estimates through October and Estimate #5, 29 December 1944 were available. Their absence suggests removal to prevent possible future embarrassment.³⁶ In the absence of these documents, further appraisal of the G2's interpretation of the indications mentioned above is precluded. No further mention of the locations of the 91st Infantry Division or 2d Panzer Division was found in December periodic reports.

³⁴ Idem., 155, 156, quoting order of battle notes from 28th Div "G2 Periodic Report #141," 170231A Dec. The division after action report indicated that the 272d Volksgrenadier Division was also initially committed against the 28th Division, but the identification of this unit was not reflected in the G2 periodic report or message files of 16-17 December.

³⁵ Ibid., 156, 157.

³⁶ Ibid., 158.

The 106th Infantry Division, on the north flank of VIII Corps relieved the 2d Infantry Division on 11 December near St. Vith.³⁷ The 106th had not experienced combat.³⁸ The 2d Division was sent north to Camp Elsenborn, Belgium to participate in the V Corps attack toward the Roer River dams.³⁹ The 2d Division had occupied its VIII Corps sector since 4 October; its periodic reports and estimates will be considered first.

The first periodic report which mentioned the German mobile reserve capability appeared on 25 November:

The enemy is now concentrating provision of reinforcements and reserves for defense of the RUHR east of AACHEN and the SAAR east of METZ. His main defensive effort so far has been in the AACHEN area, and Sixth Panzer Army is located nearest that sector. It is not clear at the present time just how the Germans will decide to split their only strategic reserve to meet the breakthrough to the RHINE at STRASBOURG. It appears that one of the Sixth Panzer Army's divisions plus possibly the local reserve (2 Panzer Divisions near KOBLENZ) will be sent.

Seventh Army and Fifth Panzer Army, defending the AACHEN-COLOGNE area and south to include LUXEMBOURG, contain 17 infantry and 5 panzer/panzer grenadier divisions.

Sixth Panzer Army, which is intended to serve as mobile reserve for the Western Front, contains 4 panzer/

³⁷ Idem., 124, quoting extracts from 106th Div "After Action Report, Dec 44."

³⁸ Ibid.

³⁹ Idem., 46, quoting extracts from 2d Div "After Action Report, Dec 44."

panzer grenadier divisions. . . . The only true strategic reserve at the disposal of the Germans for early employment in the West is Sixth Panzer Army.⁴⁰ (Underlining supplied.)

The strength of the Sixth (SS) Panzer Army was assessed.

Probable employment of the division to reinforce German defensive efforts were discussed, but the offensive capability of the Sixth (SS) Panzer Army was omitted.

On 1 December the reinforcement capability of the Sixth (SS) Panzer Army was written off:

Sixth Panzer Army no longer constitutes an effective mobile reserve for the Western Front. During the past week, 2d SS Panzer Division was reported to be committed to the line west of COLOGNE and both 9th SS and 10th SS Panzer Divisions were moved close in behind it, either for early commitment or to furnish a local reserve. In addition, 2d Panzer Division has moved from the KOBLENZ area to a location immediate behind the RUHR front. The only centrally located armor remaining for early use in the West is 1st SS Panzer Division, which was last reported near PADERBORN, 150 Km east of the RHINE.⁴¹ (Underlining supplied.)

The 106th Infantry Division relieved the 2d Infantry Division without further mention being made of the capabilities of the Sixth (SS) Panzer Army or the divisions named above.⁴²

The units in contact with the 2d Infantry Division at the end of November were the 18th and 26th Volksgrenadier

⁴⁰ Idem., 124, quoting extracts from 106th Div "After Action Report, Dec 44."

⁴¹ Idem., 49, extracting 2d Inf Div "G2 Periodic Report #160," 1 Dec 44, Annex #1 "Enemy Units on the Western Front."

⁴² Ibid., 49.

Divisions. Aerial photographs revealed intensive efforts to establish entrenchments and fortifications in depth along the Prum River and the Kyll River. Towns and villages were being systematically developed as "fortified strongpoints."⁴³

On 3 December, the Germans flew obvious reconnaissance missions over the positions of the 2d Infantry Division. On 4 and 6 December, "large groups of enemy were seen moving at some distance behind the lines, indicating that local reliefs were taking place." Artillery fire continued light and sporadic with an average of less than a hundred rounds a day being fired. On 8 December, one battalion-sized group of enemy soldiers and other groups of company size were again seen moving about "in the northern and central parts of the Division front." Armored vehicles were in motion. The following day, work parties and what appeared to be small reconnaissance and survey groups, moved about enemy positions. "Changes in routine and deterioration in camouflage were also noted." Although a major relief seemed to have occurred, no PW's or deserters were captured to identify the new unit.⁴⁴ Thus, the 106th Division entered the line on 11 December without complete knowledge of the enemy order of battle.

⁴³ Idem., 46, quoting 2d Inf Div "After Action Report, Nov. 44."

⁴⁴ Idem., 46, quoting 2d Inf Div "After Action Report, Dec. 44."

The 106th Division listed the 18th and 26th Volks-grenadier Divisions in the enemy order of battle despite evidence of a large-scale relief when the sector was occupied by the 2d Division.⁴⁵ To help the division G2 get accustomed to the division sector and mission, an assistant G2, Lieutenant Colonel W. M. Slayden, from VIII Corps was sent to the 106th Division CP. He remained with the division during the counteroffensive. In an interview after the war, he explained that "there was no Tac/R in the days preceding the 16th of December because of bad weather; if First Army had some Tac/R deeper into Germany, it did not make its results known to the division." He also gives some insight to the attitude that prevailed throughout the division:

The 2d Division cleaned out everything from their positions when they left. They told the 106th Division staff that they were going into a quiet sector and there would be no trouble. Everybody in the 106th looked forward to the brilliant opportunity to get a little battle indoctrination where it was quiet and comfortable.⁴⁶

He further noted in his diary on 15 December that there was light patrolling activity on the division front; two deserters had been captured, but gave no information.⁴⁷

⁴⁵ Idem., 125, quoting 106th Inf Div "After Action Report, 11-31 December."

⁴⁶ Idem., 133, quoting interview with Lt. Col. W. M. Slayden, asst G2, VIII Corps, on 28 Jan 45 by Capt. K. W. Hechler, 2d Information and Historical Service.

⁴⁷ Ibid.

Other PW's were talkative as indicated by Lt. Col. Joseph C. Matthews, Executive Officer, 422d Infantry Regiment, 106th Division. A Polish soldier who had deserted his German unit was picked up by the 2d Battalion, 422d Infantry, "about a week before the German breakthrough." He gave extensive information on German panzer units concentrated east of the 106th Division. He spoke of planned German infiltration and the date of the attack, 17 December. The division G2 received this report.⁴⁸

Lt Col. Matthews also related that "the sounds of many motors were heard" the night of 14-15 December; this report was also relayed to the division G2. The regimental commander criticized one battalion S2 for reporting the movement of what were called "German convoys," because the S2 could only be certain that he heard the sound of running motors. The division G2 played down the report because "corps had informed the division that the Germans might play phonograph records to simulate the massing of forces."⁴⁹

Division G2 journal entries do not record the capture or questioning of the Polish deserter. However, Periodic Report 5, for the period 142400-152400 December commented:

⁴⁸ Idem., 134, quoting interview with Lt. Col. Joseph C. Matthews, Ex Off, 422d Infantry, on 3 May 1945 by Captain William J. Dunkerly at the Moosburg Allied PW Camp.

⁴⁹ Ibid.

"Vehicular movement was heard along the entire front during hours of darkness." Enemy patrols were also active along the front. Enemy capabilities were not estimated;⁵⁰ neither were they mentioned in the previous four reports prepared by the division G2.

Captain R. D. Underwood, Information and Education Officer, 424th Infantry, disclosed the lack of information and apparent inability of the division G2 to make his own estimate of the situation. The account below is given of a regimental and battalion S2 conference held by the division G2 on the afternoon of 14 December:

. . . division G2 opened the conference by noting that two panzer Divisions were believed to be about 15 miles back of our lines as an available reserve in the event we were attacked. . . . Quoting liberally from a corps G2 estimate of the situation of about a week before, Col. Stout noted to Col. Slayden: "This must be old stuff to you because you are the one who wrote it." . . .

The three regimental S2's then reported on enemy activity on their front, and the general picture was of greatest activity on northern [422d Infantry] sector, diminishing to little or no activity on the southern [424th Infantry] sector. . . . The 422d S2 reported some patrol activity and quite a bit of artillery fire. The 423d S2 reported that they had sent out several patrols to distances of 800 yards, but had not contacted much enemy; that they had met sporadic artillery fire. The 424th's S2 reported no artillery and little mortar fire, with no evidence of activity along the front.

Col. Stout urged patrols to probe deeper to find the

⁵⁰ Idem., 127, quoting 106th Div G2 Periodic Report #5, 142400-152400 Dec 44.

enemy, to find his minefields and to capture some prisoners of war. Col. Slayden [Assistant G2, VIII Corps] underlined the need for prisoners and said that they had had no new identifications for two weeks.⁵¹ (Underlining supplied.)

The lack of a current estimate in the division hinged on its inability to capture prisoners and its reluctance to patrol deeply to find the enemy in its sector. In examining the record of available division G2 files, one cannot help but wonder why the capability expressed orally by the division G2 at the S2 conference was not translated into a written estimate of enemy capabilities for use by the division and the division commander.

Again an indication received quite late by the division G2 was at least cause for alarm when considered with the signs of attack already mentioned. The IPW team with the 422d Infantry interrogated a wounded Polish prisoner captured in the 18th Volksgrenadier Division sector the afternoon of 15 December. He had only arrived on line the previous afternoon. He was not sure of his regiment's identity; neither did he know the identity of the unit relieved, but he did say that it had been pulled out for a briefing for attack between the "17th and Christmas." He reported rumors of SS troops

⁵¹ Idem., 137, quoting interview with Captain R. D. Underwood, Info & Ed Off, 424th Inf, vicinity Spa, Belgium on 12 Jan 45 by Capt. K. W. Hechler at Spa, Belgium. Captain Underwood attended the conference described above.

participating in the attack, but he didn't know their location. He talked of searchlights supporting the attack and a new type plane. His division "was composed mostly of kids 18 to 19." Receipt of this report was logged in the G2 journal at 151930, 15 December.⁵² This message was forwarded to VIII Corps at 2006, 15 December.⁵³ Thus VIII Corps had another late indication of attack from an IPW source.

By midnight 16 December, the 106th Division had identified elements of three Volksgrenadier divisions--the 18th, 26th, and 62d--and the 116th Panzer Division in the German attack.⁵⁴ The 422d and 423d Regiments of the 106th Division were destroyed or captured by 20 December.⁵⁵

An examination of the VIII Corps after action report for November is less profitable than the foregoing extracts of division records. The report was signed by the corps commander on 24 January, so that being written after the counter-offensive, it does not fully reflect the information and estimates that prevailed in the corps staff before 16 December.

⁵² Idem., 128, quoting Msg #375, 106th Div G2 Journal, 151930 Dec 44.

⁵³ Idem., 129, quoting entry of Msg #383, 106th Div G2 Journal, 152006 Dec 44.

⁵⁴ Idem., 128, quoting 106th Div Periodic Report #6, 152300-162400 Dec 44.

⁵⁵ Idem., 125, extract from 106th Div "After Action Report, Dec 44."

In summary, the corps commander noted that fog, overcast skies, and a great deal of precipitation "permitted little aerial reconnaissance" during the month. More days of sunshine occurred in the southern sector of the 88-mile corps front than in the northern and central sectors.⁵⁶ The Ardennes Forest contained high plateaus and deeply incised valleys. The Schnee Eifel country behind the Siegfried Line was described as still more rugged. "The mission assigned to the Corps was to defend this sector in place."⁵⁷

The corps commander commented on the defensive attitude of the enemy and the "considerable shifting of divisions during the month." Elements of seven enemy divisions were identified at the beginning of the month; only four could be identified at the end of November--none of the original seven. Gone were the 2d Panzer Division, the 2d SS Panzer Division, and the 91st Infantry Division. If known, the status of the two panzer divisions and the 91st Infantry Division after withdrawal from contact was not mentioned in the after action report. "It appeared that the enemy was utilizing the sector to break in new units . . ."⁵⁸ A careful distinction between

⁵⁶VIII U.S. Corps, "Report of the VIII Corps After Action Against Enemy Forces in Belgium, Luxembourg and Germany, for the Period 1-30 November 44" (HQ VIII Corps, APO 308, 24 Jan 45), pp. 1, 2.

⁵⁷Ibid.

⁵⁸Ibid., 2.

infantry and volksgrenadier divisions was avoided in the report; only panzer units were designated apart from the other divisions.

The date of the December after action report, 6 April 1945, offered considerable time for reflection. The German divisions identified are those portrayed opposite the VIII Corps in Figure 6: the 18th, 26th Volksgrenadier, 352d, and 212th Divisions, from north to south. The corps commander's report continues:

There had been persistent reports of one or more panzer units in rear of infantry divisions on the Corps front, but this was never confirmed by capture of prisoners from such units and the weather was so bad that very little information was available from tactical air reconnaissance. On 9 December the 2d Division reported that the enemy on its front appeared new to the area, since observed actions indicated unfamiliarity with the sector. On the nights of 12-13 and 14-15 December vehicular movement was heard all along the front.⁵⁹ . . .

On the morning of 16 December the VIII Corps front flared up suddenly without warning. The sector which had been comparatively quiet . . . became the scene of Von Rundstedt's desperate thrust to upset the Allied offensive. For more than a month the German commander had been concentrating some 25 divisions in the Eifel without disclosing his intentions. . . no inkling of such offensive strength filtered through our G2 channels.⁶⁰

⁵⁹VIII U.S. Corps, "Report of the VIII Corps After Action Against Enemy Forces in France, Belgium, Luxembourg and Germany, for the Period 1-31 December 1944" (HQ VIII Corps, APO 308, 6 Apr 45), p. 3.

⁶⁰VIII U.S. Corps, "Report of the VIII Corps After Action Against Enemy Forces in France, Belgium, Luxembourg and Germany, for the Period 1-31 December 1944" (HQ VIII Corps, APO 308, 6 Apr 45), p. 3.

The break at the end of the first paragraph above is significant. The next two paragraphs were removed from the report in May 1945 and classified Top Secret. The classifying authority is not given. It is difficult to criticize an incomplete report, but the signs in the first paragraph of the quotation, whether called "inklings" or indications, at least suggested that positive direction of the collection effort was needed to answer the questions of identity, location, and strength.

V U.S. Corps.--During November, V Corps was occupied with attacks on Schmidt and the Hurtgen Forest. Resistance was stubborn in both battles. The town of Hurtgen was cleared on 30 November after a five-day battle. Preoccupied with these attacks and the subsequent attack to capture the Roer River Dams, the V Corps G2 did not notice definite signs of a German offensive buildup until early December.⁶¹

The G2 of V Corps likewise reported a period of restricted flying weather from 1-15 December with no flights at all after 11 December. The "close organization of the ground prevented a deep penetration of enemy positions" by patrols of V Corps divisions. The first indications of

⁶¹V U.S. Corps, "Intelligence Operations of V U.S. Corps in Europe" (HQ V Corps, May 1945), pp. 60-69.

German buildup were interpreted as defensive measures to protect the Roer Dams and prevent the establishment of a bridgehead across the Roer River. This estimate was gradually changed when offensive indications became obvious.⁶²

One such indication was heavy rail movement west of Bonn in early December. The G2 observed that German pilotless aircraft launchings (V-1 bombs) were virtually discontinued in December, leading to the possible conclusion that priority of rail traffic was allotted tactical units. Movements of the 11th and 12th Panzer Divisions and an unidentified panzer division were reported near Wittlich and south of Dueren. The entire Sixth SS Panzer Army was reputed to be southeast of Dueren, and new divisions were reported to be moving to the Western Front from the interior of Germany. On 7 December, Tac/R noted troop and tank concentrations opposite the V Corps and VIII Corps fronts. "The latter concentration was confirmed by a deserter, who stated that the 326th Infantry Division was north of Gerolstein where it recently arrived from Hungary." Prisoners of war revealed that the 1st SS Panzer Division was reported near Erp where other reinforcement activity was occurring. With the arrival of the Grossdeutschland Panzergrenadier Division on the V Corps front, it was estimated that "two panzer divisions had moved into the

⁶² Ibid., 70.

northern part of the V Corps front, that at least two infantry divisions and one panzer (or panzergrenadier) division had moved into the VIII Corps sector and that reinforcements were moving into the Eifel region." In short, extensive enemy activity could be traced from Dueren south to Echternach, Luxembourg--quite distant from the critical Roer Dams region.⁶³

Prisoner of war reports continued on 9 and 10 December to indicate panzer division shifts, an increase in artillery battalions on the northern part of the corps front, and a possible shift of the 1st SS Panzer Division to an area nearer the front south of Schleiden. A PW confirmed the operation of a "forward observer from the 1st SS Panzer Division with a regiment of the 277th Division." On 11 December, the day of the last flight before the counteroffensive, Tac/R noted heavy vehicular traffic south of Dueren in the vicinity of Zulpich. Four new artillery positions were discovered opposite the center of the V Corps sector by photo interpretation.⁶⁴

The tempo of activity increased along the front during the last few days before the counteroffensive. The 277th Division was reported to be forming assault companies. Prisoners alleged that an assault force was being formed from the 326th Infantry Division near Monschau. "Enemy patrols

⁶³ Ibid., 71.

⁶⁴ Ibid.

were active on our central and southern fronts, and at night an unusual number of flares were used all along these fronts."
Reports of supplies being brought forward continued to reach the corps G2.⁶⁵

The 2d Division was placed in the center of the V Corps sector after its relief from VIII Corps. That 2d Division received V Corps and First Army intelligence summaries and periodic reports is evident from an examination of the G2 journal.⁶⁶ A comprehensive division estimate of the situation was issued by 2d Division on 11 December. It disclosed the approximate locations of the divisions of Sixth SS Panzer Army and acknowledged the German capability to use the army as a single counterattack unit:

The mobile reserve for the defense of the RUHR consists of SIXTH PANZER ARMY, which contains at least five panzer divisions, all of them newly reformed and re-equipped. Although there have been persistent rumors among PW's of piecemeal commitment of those divisions, the enemy's plan is evidently to use SIXTH PANZER ARMY as a single strong counterattack force rather than to employ it in the relief of the hard-pressed units now fighting east of AACHEN.⁶⁷

The 2d Division G2 listed five capabilities of the enemy:

- (1) To defend his present positions stubbornly.
-

⁶⁵ Ibid., 72.

⁶⁶ U.S. Dept. of Army, "American Intelligence on the German Counteroffensive, 1 Nov-15 Dec 44," ibid., 49.

⁶⁷ Idem., 50, 51, quoting 2d Div "G2 Estimate of the Situation," 11 Dec 44.

- (2) To reinforce his troops in Division zone.
- (3) To defend in successive positions when forced to withdraw.
- (4) To make local counterattacks against the flanks or rear of our penetration.
- (5) To launch a major counterattack from the GEMUND-SCHLEIDEN area.⁶⁸

In discussing the capabilities, the G2 acknowledged that (1) was "in effect at present," (2) was possible because of the availability of elements of a panzer division in the vicinity of Schleiden, (3) would be "exploited by the enemy only after his present positions have been overrun or rendered untenable," (4) appeared "quite feasible" considering the terrain over which the 2d Division was to advance, and (5) would be "effected by the enemy only after a breach of his present position" had been accomplished and a "sizeable penetration" appeared imminent. In the last event, "a major counterattack by troops of regimental or greater strength may be staged to seal off the penetration and regain lost ground. An attack of this size would spring . . . from the GEMUND-SCHLEIDEN area which is the center of an excellent road net."⁶⁹ Of the division estimates considered in this study, the one above best demonstrates thorough interpretation of information from all sources and a thorough analysis of the capabilities of the enemy. Although the estimate did not name a purely offensive capability, it certainly alerted the command to the

⁶⁸Ibid., 51.

⁶⁹Ibid., 52.

threat of counterattack by the German mobile reserve.

The commander of the 99th Division, a new division in the south part of the V Corps sector, claimed to be completely surprised by the counteroffensive. In an interview held on 26 January 1945 he reiterated several times that "there had been absolutely no indication of a buildup by the Germans; the counteroffensive caught the Division completely by surprise." A contributing factor to this opinion was the terrain in the 99th Division sector. It was rough, rocky, pitted with gorges, and possessed an "extremely limited road net" which, with the exception of one main road, became knee-deep in mud during rainy weather. The thick forest limited visibility to "100-150 yards at a maximum." It was believed that at the most the Germans could perhaps infiltrate "an entire battalion through the line at one of any number of places."⁷⁰

Then the division commander described perhaps the most important reason for his surprise at the counteroffensive:

Perhaps of equal importance is the mental outlook that prevailed--one which not only in the Division, but elsewhere, almost completely discounted the possibilities of such offensive action on the part of

⁷⁰ Idem., 90, quoting interview with Maj. Gen. Walter Lauer, CG, 99th Inf Div at div CP near Sourbrodt, Belgium on 26 Jan 45 by Capt. John S. Howe, 2d Information and Historical Team (FUSA).

the Germans. One felt that it was just a matter of time before the Germans folded up; that the most they could be expected to do would be to put up a vicious and determined defense against our attack. That the Germans COULD muster such a powerful striking force, and that they would launch an all out offensive was not considered as a serious enemy capability.⁷¹

No mention was made in the interview report of the division commander's awareness or ignorance of the Sixth SS Panzer Army and its estimated danger to the 99th Division. An examination of the division's file of periodic reports for the period 9 November--15 December consistently reported "no changes" in the Capabilities section.⁷² Neither were estimates of the situation located for the period. The G2 records substantiate the division commander's testimony.

First Army Headquarters.--Through 1 December, First Army ascribed only defense, retirement, or collapse capabilities to the enemy.⁷³ However, items of information began to accumulate which changed this estimate. The periodic report of 2 December mentioned the capture of a document dated 30 October 1944 from Headquarters, LXXXVI Corps. On orders of Der Fuehrer, English-speaking volunteers who knew the "American dialect" were wanted for the formation of "two battalions"

⁷¹Ibid., 92.

⁷²Ibid., 64.

⁷³First U.S. Army, "Report of Operations, 1 August 1944 - 22 February 1945" (HQ First Army, date and place of publication not given), p. 99, quoting "Enemy Capabilities" subparagraph of G2 Estimate No. 36, 20 Nov 44.

to perform "reconnaissance and special tasks" on the Western Front. The volunteers were to receive their training at Friedenthal near Oranienburg (Hq Skorzeny).⁷⁴

Troop movements similar to the reports mentioned earlier concerning the movement of panzer divisions were reported. Their exact locations were questionable, but the activity occurred as far south as the Eifel region near Wittlich, Bitburg, Kyllburg, and Trier. The situation and capabilities were summed up in G2 Estimate No. 37, 10 December 1944; extracts of which follow:

1. SUMMARY OF THE SITUATION.

a. General. . . . the enemy has stubbornly contested every foot of ground in the zone of action of the First U.S. Army. . . . Back of the line of the Roer he has intensified his defense zone by fortification in depth, converting each village into a strongpoint, and has notably strengthened the field fortifications on the line of the Erft. His armored reserve appears to be quartered in houses and barns along the railroads generally in a semicircle from Dusseldorf to Koblenz, with Kln as a center point. He has brought up and continues to bring up Army and Corps artillery formations and to build up his fighter and fighter-bomber strength on the Western Front. It is plain that his strategy in defense of the Reich is based on the exhaustion of our offensive to be followed by an all-out counterattack with armor, between the Roer and the Erft, supported by every weapon he can bring to bear. . . .

⁷⁴ Idem., 99, 100, quoting First Army G2 Periodic Report of 2 Dec 44. Sturmbannfuehrer Otto Skorzeny headed this training center; he was the party member who planned the rescue of Mussolini after his capture and imprisonment by Italian revolutionaries. The training center was a short distance north of Berlin.

The suspension of V-1 fire from the Baumholder area and the Bonn sites is believed to be based on the use of his railroads for the bringing in of new Volksgrenadier divisions west of the Rhine and for the buildup of the necessary artillery and supplies to support his all-out ground counterattack. . . .

Tac/R and ground sources further indicate a buildup in the Bitburg-Wittlich area, where Pz Div Grossdeutschland has been reported by PW's and Panzer Lehr or elements thereof by a usually reliable source.

. . . An extremely intelligent PW whose other observations check exactly with established facts stated that every means possible is being gathered for the coming all-out counteroffensive. It is notable that morale among PW's freshly captured, both in the army cage and at communications zone cage, recently achieved a new high.⁷⁵

. . . It is apparent that von Rundstedt . . . has skillfully . . . defended and husbanded his forces and is preparing for his part in the all-out application of every weapon at the focal point and the correct time to achieve defense of the Reich west of the Rhine by inflicting as great a defeat on the Allies as possible. Indications to date point to the location of this focal point as being between Roermond and Schleiden, and within this bracket this concentrated force will be applied to the Allied force judged by the German High Command to be the greatest threat to successful defense of the Reich.⁷⁵

(Underlining supplied.)

This discussion was followed by a description of the known dispositions and activities of the enemy divisions within Seventh German Army, the Fifth Panzer Army, the Sixth SS Panzer Army, the First Parachute Army, and the Fifteenth German Army. The details outlined did not suggest the lack of intelligence or warning mentioned by the VIII Corps and 99th

⁷⁵ Idem., 100, 101, reproducing First Army "G2 Estimate No. 37," 10 Dec 44.

Division commanders. However, the Conclusions paragraph did base the counterattack capability on the successful crossing of the Roer River by V and VII Corps. This restricted interpretation of the available information was probably used by surprised commanders to justify such allegations as "no inkling of . . . offensive strength filtered through our G2 channels":

2. CONCLUSIONS.

a. Enemy capabilities.

(1) The enemy is capable of continuing his defense of the line of the Roer north of Duren, his present front line west of the Roer covering the dams, and thence south along the West Wall.

(2) The enemy is capable of a concentrated counterattack with air, armor, infantry, and secret weapons at a selected focal point at a time of his own choosing.

(3) The enemy is capable of defending on the line of the Erft and subsequently retiring behind the Rhine.

(4) The enemy is capable of collapse or surrender.

b. Discussion. Capability 2a(1) is current. The exercise of 2a(2) is to be expected when our major ground forces have crossed the Roer River. . . .

c. Reasons. . . . The continual building up of forces to the west of the Rhine points consistently to his staking all on the counteroffensive as stated in capability 2a(2).⁷⁶

The counteroffensive occurred before the Roer was crossed, and it was executed purely as an offensive capability--primarily against VIII Corps and the 99th Division of V Corps.

⁷⁸Ibid., 102

Later First Army periodic reports suggest that this estimate was in the process of being revised in the final hours before the counteroffensive:

14 December: A German woman, whose statements are believed reliable according to VIII U.S. Corps, has given the following information of her observations behind the German lines during the three days beginning 10 December. She saw many horse-drawn vehicles, pontoons, small boats, and other river-crossing equipment coming from the direction of Bitburg, and moving west through Geichlingen. In Bitburg she overheard some military personnel saying it had taken three weeks to get there from Italy; there were also troops in the town with gray uniforms and black collar patches. [Black distinguished engineer troops.] She also stated that she had seen many artillery pieces, both horse-drawn and carried on trucks. (Comment: a very interesting report. Buildup of troops has been confirmed by Tac/R and PW statements. Presence of large numbers of engineers with bridging equipment suggests preparation for offensive rather than defensive action.⁷⁷

As mentioned earlier, this woman was taken in the 28th Division sector of VIII Corps. The above information was evidently gained by a preliminary IPW report before the completion of detailed interrogation by 28th Division at 1045, 15 December--the time recorded in the 28th Division G2 journal. The above periodic report would have reached corps and divisions sometime on 15 December--barely in time to have alerted subordinate units and to have caused redispositions before the counteroffensive. The report of 15 December contained a

⁷⁷ Idem., 103, extracting First Army G2 Periodic Report, 14 Dec 44.

restricted estimate, based in part on the information obtained from VIII Corps:

Reinforcements for the West Wall between Dueren and Trier continue to arrive. The identification of at least three or four newly reformed divisions along the Army front must be reckoned with during the next few days. Although the enemy is resorting to his attack propaganda to bolster morale of the troops, it is possible that a limited scale offensive will be launched for the purpose of achieving a Christmas morale "victory" for civilian consumption. Many PW's now speak of the coming attack between the 17th and 25th of December, while others relate promises of the "recapture of Aachen as a Christmas present for the Fuehrer."

VIII U.S. Corps reports that an abrupt change of routine of enemy personnel opposite 9th U.S. armored Division strongly suggests that new troops may have arrived in that area. (Comment: Very likely a recently arrived Volksgrenadier Division coming in to relieve 212 Volks-grenadier Div.) . . . Considerable vehicular traffic was heard throughout the period opposite the southern flank of our Schnee Eifel salient.⁷⁸

As with 106th Division's Periodic Report 5, the note of vehicular traffic reached subordinate units after the counter-offensive had begun. The above report could not have reached subordinate units until the morning of 16 December. By that time, the army G2's conjecture was overshadowed by events that proved more serious than a "limited scale offensive." Whether it would have caused the army commander or the VIII Corps commander to redispersion available units or request reinforcement must remain unanswered.

⁷⁸ Idem., 103, extracting First Army G2 Periodic Report, 15 Dec 44.

Intelligence Derived in Third U.S. Army
Before the Ardennes Counteroffensive

Order of battle maps.--The G2 of Third Army published order of battle maps at least once weekly for the benefit of the army commander, the command, and other headquarters.⁷⁹ As illustrated by Figures 7 - 9, these maps portrayed the identity, location, and equivalent strength of all enemy divisions in the European Theater; the maps of 13 November and 27 November 1944 also estimated the divisions on other fronts. This graphic interpretation of order of battle information enabled the user to readily grasp the extent of German strength and where and how it was being directed against the Allies. The maps were also valuable supplements to Third Army estimates and target area analyses.

Equivalent strengths.--Equivalent strength was determined in several ways. Prisoners of war were counted by unit as they passed through Third Army cages. Enemy wounded and dead were estimated on the basis of hospital and graves registration reports. These estimates were confirmed or revised by further interrogation of old prisoners or upon capture of new ones. On 1 August, the basis for the German division was 10,500 combat effectives, or troops whose primary role in the

⁷⁹Third U.S. Army, "After Action Report, 1 Aug 44 - 9 May 45" (HQ Third Army, 15 May 1945), Vol. II, G2 Section, p. 23.

division was ground combat or combat support.⁸⁰ After the German defeat in northern France and the subsequent reduction in the division T/O, the strength of a German division was counted as 8,000 combat effectives.

November Estimates.--The Third Army G2 published on 1 November one numbered estimate of the situation for that month. He recognized that the German had a strategic reserve of at least seven panzer divisions, an infantry division and possibly three parachute divisions. The identity of these divisions is shown under the words Reported Reforming in Fig. 7. An added reinforcement capability consisted of another ten divisions being organized in the interior of Germany. In this estimate, the G2 did not assign an offensive capability that would stop the Third Army attack toward the Saar; but, he did recognize the enemy's facility for marshalling manpower and "improvising makeshift reinforcements." Defend and delay with local counterattacks and a fortress stand at Metz were the capabilities attributed to the enemy.⁸¹

The concluding lines of the SUMMARY OF THE ENEMY SITUATION, however, were extraordinarily close to the counter-offensive capability as it was executed in the Ardennes forty-five days later:

⁸⁰Ibid., 52.

⁸¹Ibid., G2 Annexes, p. CIV, quoting Third Army "G2 Estimate No. 10," 1 Nov 44.

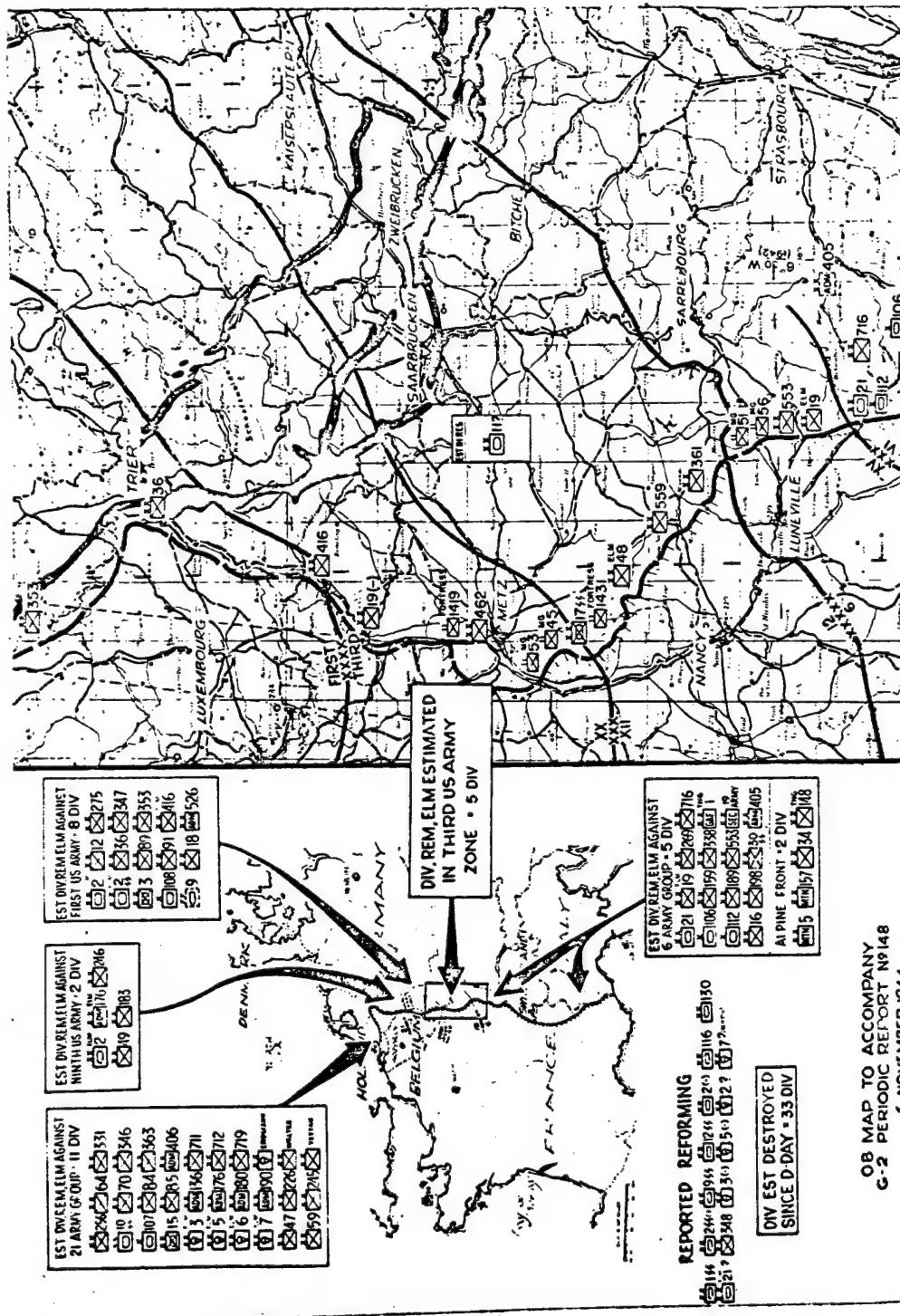


Fig. 7.—Third Army order of battle map which accompanied the G2 Periodic Report of 6 November 1944a

^aReproduced from: Third U.S. Army, "After Action Report, 1 August 1944-9 May 1945" (HQ Third Army, APO 403, 15 May 45), Vol. II, G2 Annexes, p. XCII.

The German also possesses the capability of employing these mobile reserves according to the danger of the offensive threat versus terrain; e. g., where the Allies have to fight terrain he will use these mobile reserves in small increments, and where the terrain is favorable and the Allies must overcome defensive positions, he will use his Panzers for local containing attacks or for a general counteroffensive.⁸²

On 15 November, the Third Army G2 began to show increasing concern over the Sixth SS Panzer Army, the strategic reserve in Westphalia. Figure 8 shows the order of battle map published two days previously. The strategic reserve still consisted of the Sixth SS Panzer Army and other divisions thought to be in army or army group reserve. No mention was made of the formation of the Fifth Panzer Army. The composition of the First Parachute Army was in doubt, although the probable effectiveness of the parachute divisions which had had six to eight weeks to reorganize and train was recognized. The Sixth SS Panzer Army was believed to have 500 tanks, 100 in each refitted division; it was estimated to be an effective reserve:

While the striking power of this Armor may be limited to some extent by lack of seasoned tank crews and oil supplies, the Sixth Panzer Army definitely has the capability of launching a counteroffensive at any point on the Western Front at any time.⁸³

This periodic report also discussed the problem of estimating

⁸² Ibid.

⁸³ Ibid., G2 Annexes, p. XCVI, quoting Third Army G2 Periodic Report, 15 Nov 44.

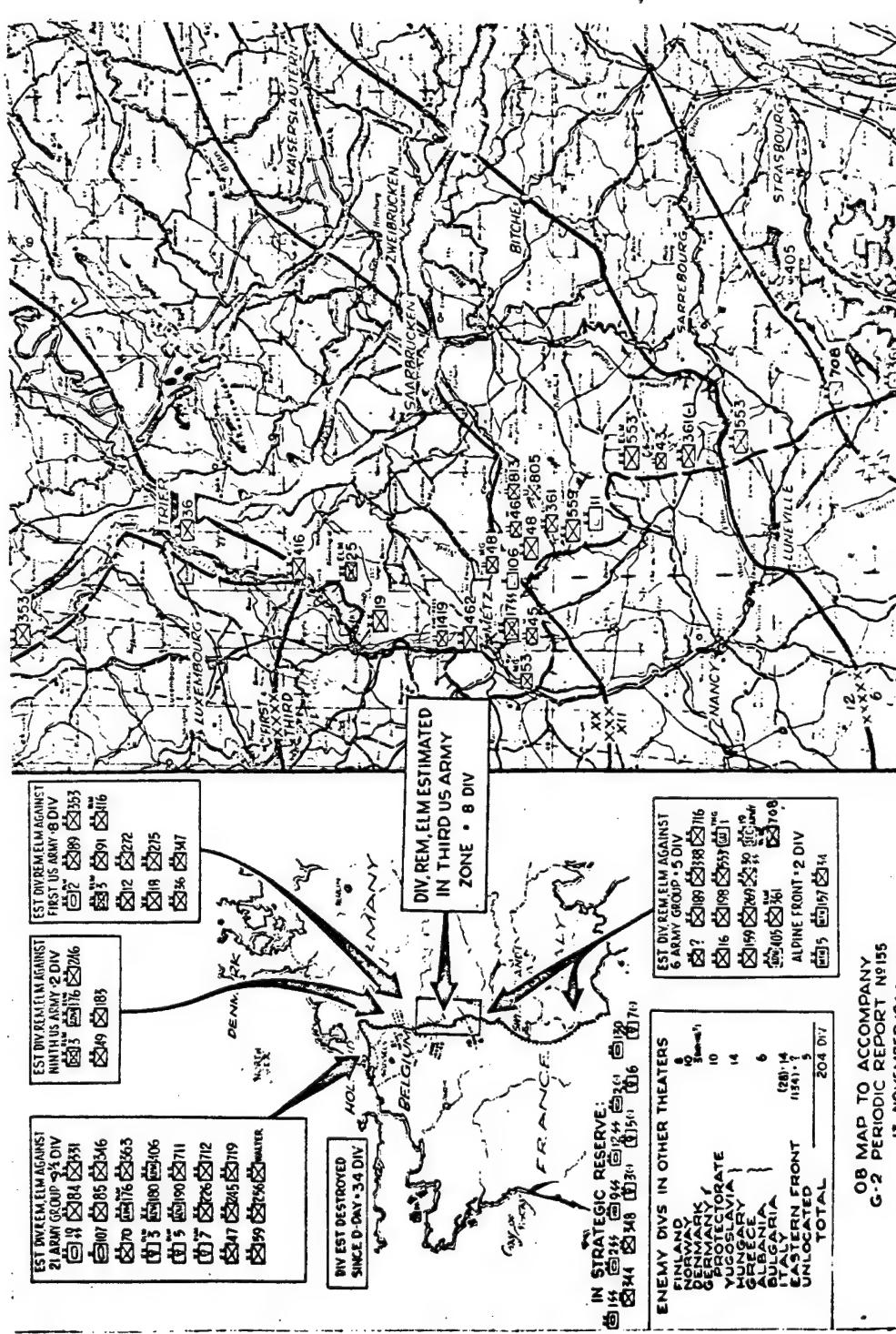


Fig. 8.—Third Army order of battle map which accompanied the G2 Periodic Report of 13 November 1944a

^aReproduced from: Third U.S. Army, "After Action Report, 1 August 1944-9 May 1945" (HQ Third Army, APO 403, 15 May 45), Vol. II, G2 Annexes, p. XCIV.

the number, effectiveness, and location of the newly formed Volksgrenadier divisions, the "Goetterdaemmerung⁸⁴ wave," as the G2 called them. Forty of these "peoples' special infantry" divisions were believed to have been formed from July to October, and another ten were forecast to complete organization during November.⁸⁵

As shown by Figure 9, the estimate of the existence of the strategic reserve continued through the last issue of an OB map for November. Enemy capabilities were revised to reflect the likelihood of local counterattacks and reinforcements of "one panzer and/or one infantry division" anywhere in the Third Army zone within twenty-four hours.⁸⁶

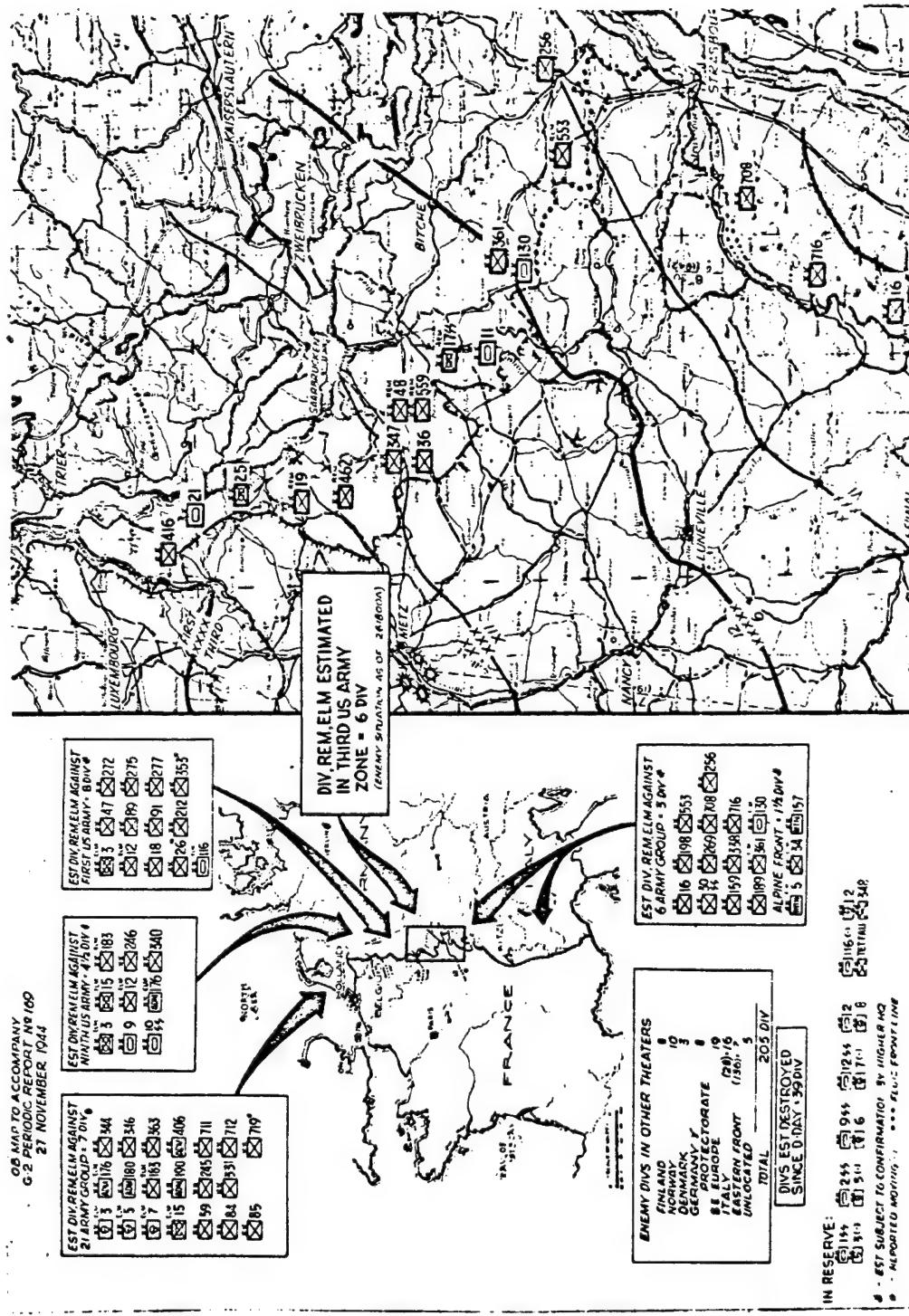
December estimates.--The strategic reserve was not portrayed on the order of battle maps disseminated during December, although the counteroffensive capability was credited on 3 December.⁸⁷ The Sixth SS Panzer Army was again mentioned on 6 December. The strategic reserve was mentioned on 6 December as consisting of six panzer divisions, three

⁸⁴Twilight of the gods or last fight and end of the (old Germanic) gods.

⁸⁵Ibid., G2 Annexes, p. XCVI, quoting Third Army G2 periodic report, 15 Nov 44.

⁸⁶Third Army "After Action Report," G2 Annexes, p. CIII, reproducing G2 periodic report of 29 November.

⁸⁷Ibid., p. CX, reproducing "Significant Enemy Order of Battle Facts in West - Week 26 Nov - 3 Dec 1944," 3 Dec 44.



three parachute divisions, and four infantry divisions for a total of thirteen divisions. Although two panzer divisions, the 2d and 12th SS, were reported to have shifted south to Third Army's zone, the army G2 estimated that the bulk of the reserve remained in Westphalia where "defense of the Ruhr still dominates the enemy's strategy."⁸⁸ It was observed on 10 December that the German had eight panzer divisions out of the line with a strong possibility that a ninth had come to the West. An enemy capability of conducting local counterattacks was given higher priority, but the possibility of a general counteroffensive was still admitted. It was also observed that the 719th Infantry Division, in relieving the 130th Panzer Division on the Third Army front, had left the German line in Holland and moved undetected during a two-week period. Interior lines of communication and the inclement weather of December were of obvious advantage to the German in concealing division moves.⁸⁹

By 13 December, the reserve had reached fourteen divisions, including eight panzer divisions, three parachute divisions, and three infantry divisions. In discussing the possible employment of this sizable force, the G2 said:

⁸⁸ Ibid., p. CXII, CXIII, reproducing G2 periodic report of 6 Dec 44.

⁸⁹ Ibid., p. CXIV, reproducing G2 periodic report of 10 Dec 44.

Indications continue that the enemy is planning an operation that would employ the four divisions of Sixth SS Panzer Army (1 SS, 2 SS, 9 SS, 12 SS) to spearhead a counteroffensive, apparently in the AACHEN-DUEREN sector. These four reconstructed divisions remain W of the RHINE vic COLOGNE despite the growing Third US Army threats of a SIEGFRIED LINE breakthrough. . . .

Another German reserve appears concentrated N of the MOSELLE, close to the First and Third US Army boundary, where 2 Pz and 130 Pz Divs have been reported. . . . Also, in the past few days no contact has been reported with 3 Pz Gren Div, but it is believed that the unit is nearby in immediate reserve.

It is evident from the determined hoarding of Sixth SS Panzer Army units that the enemy is making every effort to employ this armor in a coordinated effort. He already is bending over backward to avoid piecemeal commitment.⁹⁰

A general counteroffensive was not mentioned, however, as a capability in the Capabilities paragraph. Defend and delay, local counterattacks, and a maximum reinforcement capability of one infantry and one panzer division were announced as the enemy capabilities most probable of adoption.⁹¹ With the Moselle River separating these concentrations of German divisions from the Third Army zone, the G2 was perhaps confident that the recognized counteroffensive threat was not immediately serious to Third Army.

On 14 December, the concluding paragraph in the periodic report read:

⁹⁰ Ibid., p. CXVI, reproducing G2 periodic report of 13 Dec 44.

⁹¹ Ibid.

Coming Counteroffensive. PW taken in XII US Corps zone claimed he heard Hitler give talk recently that troops should hold because in two weeks a German counteroffensive would be launched. PW from 17 SS Security Company, 17 SS Pz Gren Div stated he was carrying a verbal message night 13-14 Dec from Div to the Co CP when captured. Message was as follows: "Last night message ordering your retreat was false. Everyone is to hold and prepare for a counterattack that is in the making."92

The final indication of a counteroffensive Third Army recorded in periodic reports was an intercepted message to the 21st Panzer Division motor pool that approximately 40 American and English vehicles captured in Normandy had to be turned in. The vehicles were to be used to infiltrate saboteurs and agents into the American lines.93

Third Army was well informed about the locations and capabilities of the Sixth SS Panzer Army throughout November and December. One cannot help but wonder why VIII Corps was so terribly in the dark with this powerful enemy force poised for attack on the corps front.

Intelligence Derived in Ninth U.S. Army before the Ardennes Counteroffensive

October and November reports.--As early as 2 October, Ninth Army had found the Siegfried Line strong and stubbornly defended even when manned by hastily organized combat teams, convalescents, and home guard units. Better units, remnants

⁹²Ibid., p. CXVII, reproducing G2 periodic report of 14 Dec 44.

⁹³Ibid., reproducing G2 periodic report of 15 Dec 44.

of the Wehrmacht's line divisions, were often pulled behind the Line to "maintain defensive positions through the medium of counterattacks."⁹⁴ This pattern was repeated in the experience of First Army.

Extensive vehicular movement was reported during the latter part of October and early November. Enemy troops defending Wurselen seemed particularly sensitive to Ninth Army reconnaissance patrols; reaction there was especially vigorous. Julich and Mersch were centers of vehicular traffic.⁹⁵ Southbound traffic to Geilenkirchen was reported on 17 November.⁹⁶ The 1st SS Panzer Division was identified in the vicinity of Erkelenz on 20 November. The 10th SS Panzer Division and the 3d Panzer Grenadier Division were identified in the vicinity of Linnich on 22 and 23 November.⁹⁷ During the period of the offensive conducted in coordination with First Army, the Ninth Army G2 had identified four infantry and six panzer divisions in reserve west of Cologne. Four of the six

⁹⁴ U.S. War Dept, Adj Gen Office, Historical Documents WW II, Microfilm Job 500, Reel No. 107, "G2 After Action Report, 1-31 Oct 44" (HQ Ninth U.S. Army APO 339, 10 Nov 44), Incl 1 "Rept of En Action for Oct, 1944, fr G2 Sit Sec," p. 2.

⁹⁵ Ibid., "Rept of En Action for Pd 1-11 Nov 44 fr G2 Sit Sec," pp. 1, 2.

⁹⁶ Ibid., "Rept of En Action for Pd 12-18 Nov 44 fr G2 Sit Sec," p. 2.

⁹⁷ Ibid., "Rept of En Action for Pd 19-25 Nov 44 fr G2 Sit Sec," pp. 1, 2.

panzer divisions were recognized as part of the Sixth SS Panzer Army. Only four divisions of this force were committed against the U.S. offensive.⁹⁸ OSS reported two panzer divisions at Muenchen-Gladbach and Julich; SS soldiers were at these two towns "boasting that they were shortly to make a counterattack."⁹⁹ SS troops were likewise identified in Durwiss during the week of 19-25 November.¹⁰⁰

December report.--First and Ninth Armies continued their drive to the Roer River when the month began. "Stubborn enemy resistance, heavy minefields, and bad weather" hampered the attack considerably. The Ninth Army G2 was well aware of the threat and capability of the Sixth SS Panzer Army. He noted:

. . . the enemy had been able to contain the Ninth and First Armies without committing any of the four Panzer Divisions constituting this force. This economy had given him a very powerful mobile striking force with which to counter any break thru [sic] of his Roer River defenses. The presence of such strong forces West of the Rhine and the strength of the Roer River works made it clear that the enemy intended to make a determined stand west of the Rhine along the Roer.¹⁰¹ (Underlining supplied.)

⁹⁸ Ibid., "G2 After Action Report, 26-30 Incl, Nov 44, En Sit and Ops," 6 Dec 44.

⁹⁹ Ibid., "After Action Report for Pd 12-18 Nov, 44, fr G2 Ofc of OSS Sec," 6 Dec 44.

¹⁰⁰ Ibid., "After Action Rept for Pd 19-25 Nov, 44, fr G2 OSS Sec," 6 Dec 44.

¹⁰¹ Ninth U.S. Army, "G2 After Action Report, 1-15 Inclusive, December 1944, Enemy Situation and Operations," (HQ Ninth Army, APO 339, 19 Dec 44), p. 1.

The existence of the Sixth SS Panzer Army was known; its approximate location was fixed, and its strength was accurately tabbed. Despite wishful thinking that the Wehrmacht was near the end, this army had a clear offensive capability--a convenient conclusion aided by hindsight. One query remains: What doctrine prompted the construction and use of the Siegfried Line?

German Doctrine of the Stabilized Front

Economy of force.--The Siegfried Line or West Wall was designed to preserve the fighting strength of the German Army if engaged in a two-front war. General von Brauchitsch, then German Commander-in-Chief, commented in 1939 that the West Wall, "the strongest fortification in the world, enabled us to destroy the Polish Army in the shortest possible time without obliging us to split up the mass of our forces at various fronts, as was the case in 1914."¹⁰² The deep zone of fortified positions that prevailed in the Siegfried Line was designed to prevent the expenditure of manpower in positional warfare that had cost Germany so heavily in World War I. Troops were taught to hold each position with tenacity and courage. Each link in the system was important. Held

¹⁰²U.S. War Department, Booklet No. 17, Special Series, German Doctrine of the Stabilized Front (Washington 25, D. C.: Mil Intel Div, War Dept, 15 Aug 43), p. viii.

to the last, it would impede and destroy the will of the attacker and enable a strong counterattacking force to eliminate the enemy force.¹⁰³ This accounts for the stubborn defense met by the Allies as they breached the Line.

Base for offensive action.--When an effective defense is achieved with minimum manpower, "the bulk of the field armies will be left mobile and free for offensive action elsewhere." The fortified zone did not exist simply to protect The Fatherland; it was "to be a base for offensive operations."¹⁰⁴

The Ardennes application.--From the foregoing account of the counteroffensive and the brief review of German doctrine above, one can trace the application of these two fundamental principles of the Siegfried Line. The German was outnumbered badly on several fronts in the autumn of 1944. Numerical or material superiority was impossible to achieve in Russia or Italy. After the crushing defeat in France in the summer of 1944, battered remnants of line divisions had to be drawn inside the borders of Germany for reorganization and re-equipping. The Line was strong enough naturally to permit this while manned by inferior troops, the volksgrenadier divisions. If a mobile force could be salvaged and

¹⁰³Ibid., pp. 6, 7.

¹⁰⁴Ibid., p. 2.

held intact, then the Line could be used as a base for offensive operations where knowledge of the terrain, patriotic fervor, and nonflying weather further aided the German and gave him at least a temporary tactical advantage.

The counteroffensive plan.--As originally developed, the plan is included to satisfy the reader's curiosity--to tie together the 16 December employment of some of the German units repeatedly discussed in this chapter. Figure 10 shows the corps and divisions attached to the participating armies and how they were to be used.

Summary

VIII Corps Intelligence.--The divisions of VIII Corps identified five of the twelve divisions of Fifth Panzer Army and Seventh Army which attacked on 16 December 1944. No units of the Sixth SS Panzer Army were in contact with VIII Corps divisions from 1-15 December. The Corps had unconfirmed reports of at least two panzer and two infantry divisions in mobile reserve.

The low ratio of identifications is one reason why the VIII Corps commander and the 9th Armored Division commander expressed surprise at receiving the German attack. The units of VIII Corps watched and heard the enemy buildup occur and assumed it was a series of reliefs, such as they were accustomed to within their own lines. Neither the corps

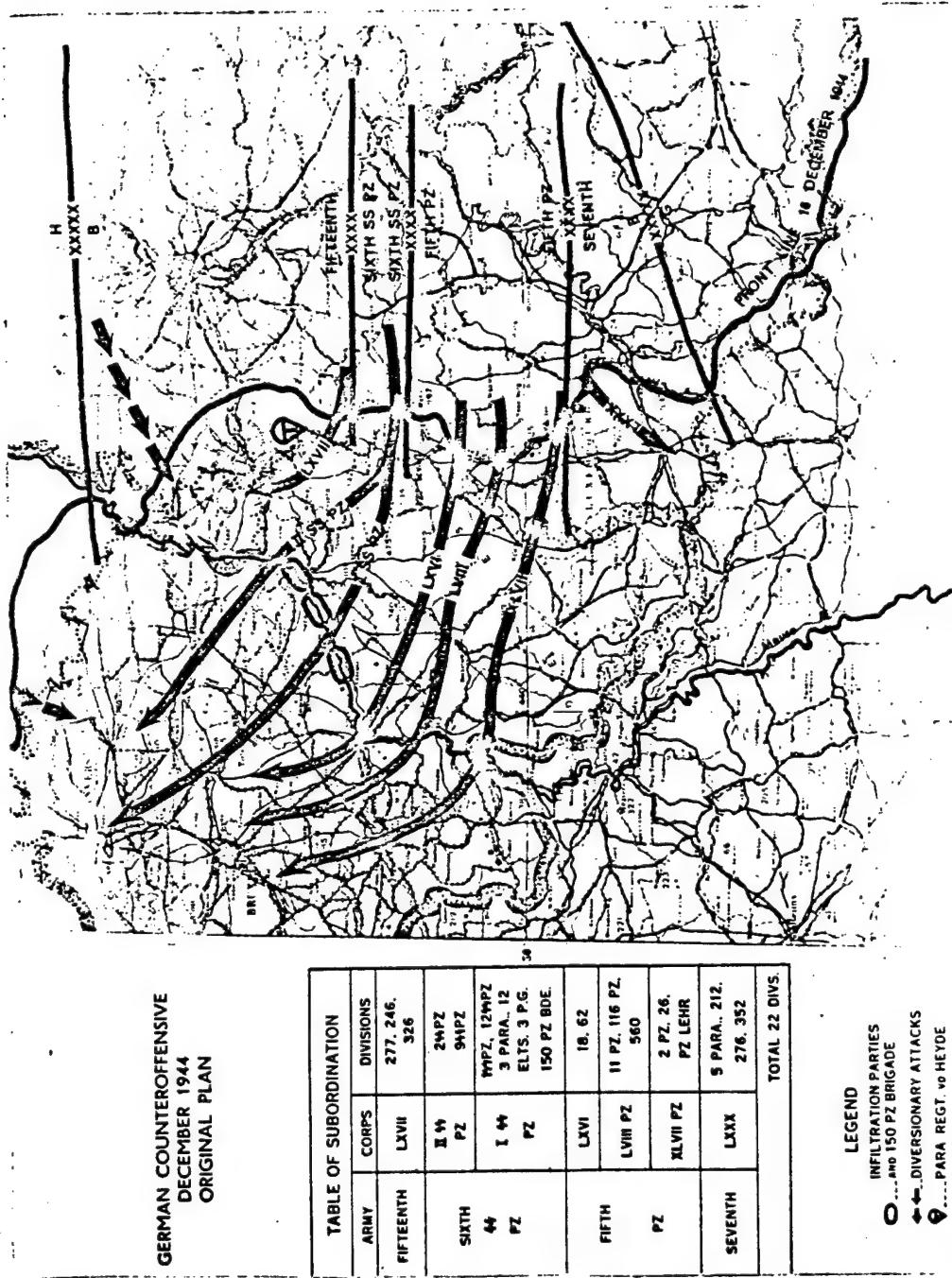


Fig. 10.—German Plan and Table of Subordination for the Ardennes Counteroffensive

^aReproduced from: First U.S. Army, "Report of Operations, 1 August 1944-
22 February 1945" (HQ First Army, n.d., 1945), illustration facing p. 105.

nor the divisions estimated a strong German attack capability.

Shallow patrolling, the capture of only a few prisoners (including several deserters), and repeated entries of "no change" in division estimates furnish ample evidence of a passive collection effort accompanied by infrequent analysis of the enemy situation.

Sounds of German traffic were reported opposite several division sectors, but only the 28th Division G2 on 11 December took steps to determine enemy attack or relief plans through IPW. Interrogation efforts were unsuccessful. Relief or reinforcement indications continued. The questioning of the woman informer taken on 14 December provided a clear indication of attack. The information she provided reached the army G2, but repositioning of units to meet the threat or efforts by First Army to confirm her report were not evident. VIII Corps G2's retained a mental outlook--not current estimates--that the German did not possess the manpower nor material superiority to conduct a major offensive. Continued indications of attack, including interrogation of the two deserters taken by the 4th Division and the two Polish PW's captured by the 106th Division, were not considered seriously within VIII Corps.

V Corps Intelligence.--Two divisions were considered in the V Corps sector: the 2d and the 99th. The 2d recorded the best division estimate of units considered in V and VIII

Corps. This estimate: (1) recognized the continued threat of the Sixth SS Panzer Army, (2) located those divisions closest to the 2d Division sector, (3) evaluated the favorable road and rail net in the Gemund-Schleiden area for German concentration; and (4) ascribed a counterattack capability to the German after the Allied crossing of the Roer.

The 99th Division offers an unfortunate contrast. From the testimony of the division commander, the division estimate limited the German to battalion-sized infiltrations in several locations throughout the division sector. Estimates of the situation repeatedly read "no change" to the primary capability granted the German--a strong, determined defense against a U.S. attack. The division commander was completely surprised by the offensive. Estimates were based solely on terrain analysis with no mention of enemy location, strength, or identification.

The V Corps G2 records in after action comments the vehicular movement south of Dueren, the last Tac/R reports (7 December) of troop concentrations opposite the V and VII Corps fronts, and the formation of assault forces by two divisions. The corps did not admit being surprised by the German counteroffensive; yet, its south flank unit, the 99th Division, stated that surprise was complete.

First Army.--First Army's Estimate No. 37, 10 December

1944, fixed the general area of Sixth SS Panzer Army troop concentrations and noted several indications of counterattack. This capability was described as a counterattack against a U.S. penetration east of the Roer River anywhere in a 50-mile area between Roermond and Schleiden. Observed signs of increased troop activity were admittedly occurring south of Schleiden! No attack capability was ascribed to the thinly held Ardennes sector held by VIII Corps. The estimate was geared to our plans and initiative; no penetrations deeper into the First Army zone than the German seizure of Aachen were envisioned. The army after action report does not record army efforts to supervise a stepped-up collection effort in the Eifel.

Third Army Intelligence.--In several periodic reports beginning as early as 1 November, the Third Army G2 tabbed the strength and general location of the Sixth SS Panzer Army and admitted that this force had a strong offensive capability anywhere in the U.S. zone. On 13 December, the estimate of the strength of the entire German reserve, Sixth SS Panzer Army and Fifth Panzer Army reached fourteen divisions, an accurate estimate considering the eight or nine divisions identified in contact in the First Army zone and the total of twenty-two divisions participating in the counteroffensive.

One strength of Third Army's estimates lay in thorough

order of battle estimates and concurrent consideration of equivalent strengths of German fighting units. The army G2 noted on 13 December that the German was avoiding piecemeal commitment in favor of a coordinated effort.

Ninth Army Intelligence.--The Ninth Army was aware of the strength and general location of Sixth SS Panzer Army, although its employment was estimated to be as a strong counterattack force in conjunction with a determined German defense west of the Rhine. The G2 further observed that the German was able to contain First Army and Ninth Army attacks against the Roer River dams without commitment of any of the panzer divisions of the reserve.

German Tactical Doctrine.--The employment of the Fifth and Sixth SS Panzer Armies was in accord with German tactical doctrine. Economy of force was achieved in the Siegfried Line with home guard divisions or second-rate units while the best German line units were carefully saved for commitment in a counteroffensive role. This doctrine was published in an Army manual and available for the study of G2's. The buildup and protection of a strong, two-army reserve behind the Siegfried Line illustrated that the Siegfried Line was intended to be a base for offensive operations.

Conclusion.--The general location and strength of the Sixth Panzer Army and later the Fifth Panzer Army were known

to First, Third, and Ninth Armies. However, there was reluctance to ascribe an offensive capability to this strong reserve. Past Allied victories, a weakening German Wehrmacht, and wishful thinking espoused estimates that limited the employment of the reserve to a major counterattack against an Allied penetration east of the Roer River. Third Army, in several estimates and periodic reports, recognized the general offensive capability of the German reserve but likewise estimated a counterattack role in defense of the Ruhr as being more likely of adoption. The Ardennes counteroffensive was in accord with published German tactical doctrine regarding the employment of the Siegfried Line.

to First, Third, and Ninth Armies. However, there was reluctance to ascribe an offensive capability to this strong reserve. Past Allied victories, a weakening German Wehrmacht, and wishful thinking espoused estimates that limited the employment of the reserve to a major counterattack against an Allied penetration east of the Roer River. Third Army, in several estimates and periodic reports, recognized the general offensive capability of the German reserve but likewise estimated a counterattack role in defense of the Ruhr as being more likely of adoption. The Ardennes counteroffensive was in accord with published German tactical doctrine regarding the employment of the Siegfried Line.

CHAPTER V

CONCLUSIONS

In the European Theater during World War II, field army intelligence operations were conducted with admirable efficiency, insight, and ingenuity. A continual quest for faster methods of gathering information was evident in each army studied.

Field armies planned aerial reconnaissance in greater detail than ground reconnaissance during operations in northern Europe. Using essential elements of information and standing operating procedure to guide corps and divisions, field army permitted those echelons wide latitude in their collection effort. Assignment of specific ground reconnaissance and observation missions began at corps level. The G2 plan or collection worksheet was rarely used in combat; when used, it was considered advantageous for the orientation of intelligence specialist teams.

Prisoners of war were the most lucrative source of information--particularly in developing order of battle details. The failure of VIII Corps divisions to identify all

enemy units in contact after a period of reinforcement from 1 - 15 December 1944 largely accounts for their surprise at the strength of the Ardennes counteroffensive. Few prisoners were taken by VIII Corps during this period.

Aerial reconnaissance proved the second most profitable source of information despite the severe limitations placed on its use during adverse weather conditions of restricted ceiling and visibility. The necessity of favorable weather for aerial reconnaissance and air support operations increased the reliance of the commander on the G2 for timely weather information. Air Force mobile weather detachments at army and corps level provided this information under the staff supervision of the G2.

When weather halted aerial reconnaissance operations by supporting Air Force tactical air commands, the Army L5 plane was often able to provide the G2 a limited capability in both photographic reconnaissance and visual reconnaissance. Specifically, the L5 plane proved useful for short-range visual reconnaissance missions in France and for photographic reconnaissance missions prior to the crossing of the Roer River.

With a prolonged period of bad weather in the First Army zone during the first half of December, G2's were largely restricted to ground reconnaissance and observation for

information of the enemy. Despite indications of relief or reinforcement in the Eifel Forest, division G2's in the Ardennes failed to direct a vigorous reconnaissance effort to determine the identity, location, and strength of German divisions. The need for stronger staff supervision of the collection effort was evident at corps and army level.

Technically, the armies badly needed an all-weather capability for deep reconnaissance of the army area of interest--a depth of 150 miles in Third Army's experience.

Although army G2's recognized the identity, location, and strength of the Fifth and Sixth SS Panzer Armies, they were reluctant to assign a high probability of adoption to a purely offensive capability. Army estimates were geared to German reaction to an Allied attack across the Roer River to the Rhine. Divisions in the Ardennes were largely surprised by the counteroffensive. The failure of division G2's to plan and supervise a vigorous collection effort directed toward the seizure of prisoners and the determination of the German order of battle in the Eifel was apparent.

The unexpected German offensive proved that in processing information, the G2 must conduct a penetrating study of enemy strength, location, identification, and tactical doctrine. The offensive was a clear capability in accord with German doctrine on tactics to be employed on the stabilized

front. Speculations regarding terrain, German material strength, and the missions of enemy units employed opposite VIII Corps precluded accurate estimates based on German dispositions and strength. Continuous estimates supported by exploitation of every source of information available to the G2 provides the enduring lesson of intelligence operations before the Ardennes counteroffensive.

APPENDIX I

INSTRUCTIONS FOR THE UNITED STATES ARMY, 0-2 REVISION

OPERATIONAL

Office of AD of S, O-2

ADMINISTRATION

1. **Records**

- a. G-2 Records.
- b. Correspondence.

2. **G-2 Library**

- a. Maintenance and distribution of supplies in G-2 section.

3. **Distribution of Intelligence publications.**

- a. Preparation of Intelligence Plans, Annexes and Operations Plans.
- b. Map selection, map policies and terrain studies.

4. **Representation of Intelligence documents.**

COMINT INTELLIGENCE

1. **Operations**

- a. Preparation of planned Tac/R missions.
- b. Dissemination of information obtained from aerial reconnaissance.
- c. Preparation of Estimates and Periodic Reports.

2. **Planning**

- a. Preparation of Intelligence Plans, Annexes and Operations Plans.
- b. Map selection, map policies and terrain studies.

3. **Team**

- a. Assignment and replacement of intelligence specialists teams attached to Fleet U. S. Navy.

4. **Order of Battle**

- a. Compilation of OB data.
- b. Dissemination of OB notices.
- c. Analysis of radio intercepts.
- d. Supervision of OB Team.

5. **Intelligence of Key Subordinate**

- a. Organization of IV subordinate in coordination with G-1 and PI.
- b. Direction of IV Interrogation.
- c. Supervision of IV personnel.
- d. Distribution of IV reports.

6. **Intelligence Subsection**

- a. Compilation and dissemination of data for air and artillery targets.
- b. Compilation of long range data on enemy defenses and installations.
- c. Special photo studies of enemy installations.

7. **Distribution of Intelligence Funds.**

COUNTER INTELLIGENCE

1. **Preparation of Counter Intelligence plans and security policies.**

- a. Recommendations and interpretation of Counter Intelligence policies.

2. **Formulation and supervision of civil security measures.**

- a. Coordination of reconnaissance plan and requests presentation to IX GOC.
- b. Coordination of Ground Liaison with IX 720 Reconnaissance and Photo units.
- c. Supervision of procurement, interpretation and distribution of serial photos through Assistant Aerial Photo Officer.

3. **Planning and allocation of Counter Intelligence targets.**

- a. Maintenance of conduct of personalities of Counter Intelligence interest.

4. **Establishment and supervision of a Civilian Interrogation Center for interrogation of enemy participants.**

- a. Conducting clearance and loyalty checks of specialized military personnel.

5. **Dissemination of Counter Intelligence reports and summaries.**

- a. Collection, evaluation and dissemination of information from enemy documents.

6. **Coordination of above activities with Counter Intelligence subsection.**

O-2 AND

1. **Operations**

- a. Preparation of planned Tac/R missions.
- b. Dissemination of information obtained from aerial reconnaissance.
- c. Coordination of reconnaissance plan and requests presentation to IX GOC.

2. **Planning**

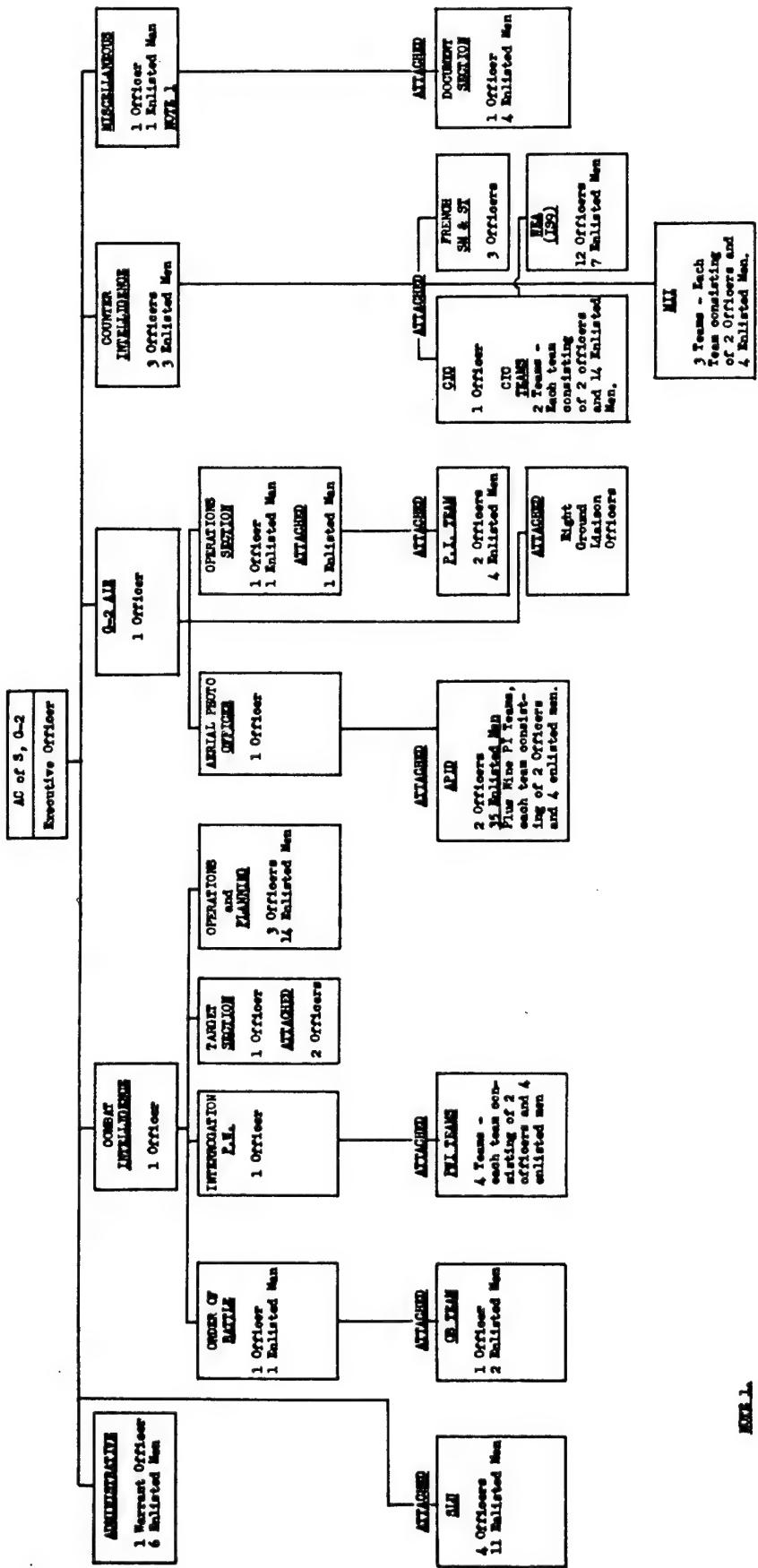
- a. Coordination of Ground Liaison with IX 720 Reconnaissance and Photo units.

3. **Supervision of procurement, interpretation and distribution of serial photos through Assistant Aerial Photo Officer.**4. **Establishment and supervision of a Civilian Interrogation Center for interrogation of enemy participants.**5. **Conducting clearance and loyalty checks of specialized military personnel.**6. **Dissemination of Counter Intelligence reports and summaries.**7. **Collection, evaluation and dissemination of information from enemy documents.**8. **Coordination of above activities with Counter Intelligence subsection.**

INTELLIGENCE

APPENDIX III

DRAFT



Miscellaneous subsection supervised and evaluated combat intelligence information from captured documents and other sources, coordinating activities with Combat Intelligence subsection.

BIBLIOGRAPHY

Public Documents

United States. Report by the Supreme Commander to the Combined Chiefs of Staff on the Operations in Europe of the Allied Expeditionary Force (6 June 1944 to 9 May 1945). Report signed by General Eisenhower on 13 July 1945. Washington, D.C.: U.S. Govt. Printing Office, 1946.

U.S. War Department. German Doctrine of the Stabilized Front. Booklet No. 17, Special Series. Washington 25, D.C.: Military Intelligence Division, War Department, 15 August 1943.

U.S. War Department. TM E 30-451 Handbook on German Military Forces. Washington 25, D. C.: War Dept., 1 September 1943.

U.S. Department of the Army. Army Regulation 320-5 Dictionary of United States Army Terms. Washington 25, D.C.: Headquarters, Department of the Army, February 1963.

U.S. Department of the Army. FM 30-5 Combat Intelligence. Washington 25, D.C.: Headquarters, Department of the Army, July 1963.

U.S. Military Academy. The War in Western Europe, Part I, June to December, 1944. West Point, New York: Department of Military Art and Engineering, 1949.

U.S. Army Command and General Staff School. FM 101-5 General Staff Officers Manual. Fort Leavenworth, Kansas: 1 October 1945.

Books

Allen, Robert S. Lucky Forward. New York: The Vanguard Press, Inc., 1947.

Davidson, Phillip B., and Glass, Robert R. Intelligence is for Commanders. Harrisburg, Pa.: Military Service Publishing Company, 1948.

Eisenhower, Dwight D. Crusade in Europe. Garden City, New York; Doubleday and Company, Inc., 1948.

Guderian, Heinz. Panzer Leader. New York: Dutton and Company, Inc., 1952.

Liddell Hart, B. H. The German Generals Talk. New York: William Morrow and Company, 1948.

Liddell Hart, B. H. (ed). The Rommel Papers. New York: Harcourt, Brace, and Company, 1953.

Patton, George S., Jr. War as I Knew It. Boston: Houghton Mifflin Company, 1947.

Townsend, Elias Carter. Risks: The Key to Combat Intelligence. Harrisburg, Pa.: Military Service Publishing Company, 1955.

Unpublished Material

U.S. Department of the Army. "American Intelligence on the German Counteroffensive, 1 November - 15 December 1944." Ed. Royce L. Thompson. Washington 25, D.C.: Historical Division, Special Staff, U.S. Army, March 1949. This manuscript is a collection of extracts and complete quotations of the G2 files and after action reports of U.S. divisions on line in the period preceding and during the first days of the German counteroffensive in the Ardennes. Mr. Thompson has added comments on the completeness of the files studied and the intelligence estimates and sources considered.

U.S. Army Ground Forces. Report C-956 "Organization for Combat of G2 Sections; G2 Functions." Headquarters, European Theater of Operations, U.S. Army, APO 887, 17 May 1945.

12th U.S. Army Group. "Report of Operations." Vol. III, G2 Section (Parts I through IV). Headquarters 12th Army Group, 1 July 1945.

12th U.S. Army Group. "A Study of Operations of the G2 Intelligence Branch in the 12th Army Group, 1 August 1944 to 9 May 1945." Headquarters 12th Army Group, G2 Intelligence Branch, APO 655, 1 July 1945.

First U.S. Army. "Standing Operating Procedure." Headquarters, First U.S. Army, APO 230, 1 December 1944.

First U.S. Army. "Report of Operations, 20 October 1943 - 1 August 1944." Books I, III, and V. Headquarters First Army: 1945.

First U.S. Army. "Report of Operations, 1 August 1944 - 22 February 1945." Headquarters First Army, n.d. 1945.

First U.S. Army. "Combat Operations Data, First Army, Europe 1944-1945." Governors Island, New York 4, N.Y.: Headquarters First Army, 18 November 1946.

Third U.S. Army. "After Action Report, 1 August 1944 - 9 May 1945." Vols. I and II. Headquarters Third Army, APO 403, 15 May 1945.

Ninth U.S. Army. "After Action Reports, September - November Inclusive, 1944." U.S. War Department, AGO, Historical Documents World War II, Microfilm Job 500, Reel No. 107.

Ninth U.S. Army. "G2 After Action Report, 1-15 Inclusive, December 1944, Enemy Situation and Operations." Headquarters Ninth Army, APO 339, 19 December 1944.

Ninth U.S. Army. "G2 After Action Report, 16-31 January 1945, Inclusive, Enemy Situation, Operations, Dispositions, and Capabilities." Headquarters Ninth Army, APO 339, n.d. 1945.

Ninth U.S. Army. "G2 After Action Report 1-15 February 1945, Inclusive - Enemy Situation, Operations, Dispositions, and Capabilities." Headquarters Ninth Army, n.d. 1945.

Ninth U.S. Army. "G2 After Action Report 1-15 March 1945, Inclusive - Enemy Situation, Operations, Dispositions, and Capabilities." Headquarters Ninth Army, 19 March 1945.

V U.S. Corps. "Intelligence Operations of the V U.S. Corps in Europe." Headquarters V Corps, 4 January 1946.

VIII U.S. Corps, "Report of the VIII Corps After Action Against Enemy Forces in Belgium, Luxembourg, and Germany, for the Period 1-30 November 1944." Headquarters VIII Corps, APO 308, 24 January 1945.

VIII U.S. Corps. "Report of the VIII Corps After Action Against Enemy Forces in France, Belgium, Luxembourg, and Germany." Headquarters VIII Corps, APO 308, 6 April 1945.

XIX U.S. Corps. "Applications of Information on Weather and Climate in XIX Corps." Headquarters XIX Corps, Office of Assistant Chief of Staff, G2, APO 270, n.d. 1945.

XIX U.S. Corps. "Dissemination of Combat Intelligence and The Organization of Intelligence Personnel in Combat." Headquarters XIX Corps, 14 August 1945.

XIX U.S. Corps. "Present Sources of Combat Intelligence." Headquarters XIX Corps, Office of the Assistant Chief of Staff, G2, APO 270, May 1945.

U.S. Army Command and General Staff School. Lecture I "Principles of Military Intelligence," Lecture II- "Military Intelligence Factors in the Commander's Decision and Essential Elements of Information," Exerc No. 9 "Military Intelligence." Volume 10 (G2 Subjects, in unpublished series of lectures presented to the Regular Class, Fort Leavenworth, Kansas: Archives, Command and General Staff College, 1939-1940.

U.S. Army Command and General Staff School. Schedule 33-W-13-GS "Combat Intelligence" with Annex "Steps in the Production of Combat Intelligence," Schedule 34-W-13-GS "Enemy Capabilities, Essential Elements of Information, and Indications." Vol. 2, 13th G.S. Course. Fort Leavenworth, Kans.: Archives, U.S. Army Command and General Staff College, April-June 1943.

U.S. Army Command and General Staff School. Instructional booklet "Intelligence Handbook." Vol. 1, 18th G.S. Crse, April-June 1944. Fort Leavenworth, Kansas: Archives Command and General Staff School, April 1944.

REPOR

Public reporting burden for this collect
the data needed, and completing an
reducing this burden to Washington
Management and Budget, Paperwork
1. AGENCY USE ONLY

4. TITLE AND SU
THE COLLEC
PERFORME
EUROPE

6. AUT
Schr